

(23,459)

SUPREME COURT OF THE UNITED STATES

OCTOBER TERM, 1913.

No. 397.

DES MOINES GAS COMPANY, APPELLANT,

vs.

CITY OF DES MOINES ET AL.

APPEAL FROM THE DISTRICT COURT OF THE UNITED STATES FOR
THE SOUTHERN DISTRICT OF IOWA.

VOLUME III.

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Q. And where was that bank located?

A. In Eagle Grove, Iowa.

Q. Aside from your experience in the banking business in Des Moines in what other place have you been in the banking business?

A. In Webster City and Eagle Grove.

Q. So that your entire experience in connection with banks has been in Iowa?

A. Yes, sir.

Q. Now has your business experience been continuously in the banking business or were you for a time engaged in some other business or was the other business additional to your banking business, please explain that?

A. No, I have been continuously in the banking business.

Q. During the time you have been in the banking business, what official position, if any, did you hold for a time?

A. Either cashiership or presidency.

Q. That is of the banks?

Mr. BRENNAN: You want to show that he was formerly bank examiner, just ask him.

Q. Were you for a time bank examiner?

A. Yes, for six years in Iowa.

1851 Q. During what years was that?

A. During 1893, 1894, 1895, 1896, 1897, and 1898.

Q. Are you connected at the present time with any other business enterprise or financial institutions in the city of Des Moines?

A. Yes, sir.

Q. What?

A. I have an interest in the Brown-Camp Hardware Company.

Q. And in what business are they engaged?

A. In wholesale hardware, jobbing business.

Q. Any other business enterprise?

A. I own a little stock in the Warfield-Pratt-Howell Co.

Q. In what business are they engaged?

A. Wholesale grocery business.

Q. Any others?

A. In Des Moines, not that I can think of.

Q. What if any official position do you hold in the Central Life Insurance Company?

A. I have some stock in the Central Life and I am a director there and treasurer.

Q. That is a Des Moines institution?

A. Yes, sir.

Q. Now any others that you think of?

A. Not that I think of in Des Moines.

Q. Now in the conduct of your business as a banker, and your other business transactions, have you become advised as to the financial interests and become acquainted with financial men quite largely in the city of Des Moines?

A. I think I have.

Q. And have you among your depositors a good many
1852 business men and other financial men in the city of Des
Moines?

A. Yes, sir.

Q. And what is the fact as to whether you frequently have one
or more of your depositors conversing upon the subject of business
interests and financial investments and to what extent are you con-
sulted by your various depositors along these lines?

Objected to as irrelevant and immaterial.

A. Why yes, I am consulted quite frequently.

Q. Do you know what was an or about the 1st of January of this
year in Des Moines the current rate of interest upon money in-
vested in first class securities such as first mortgages upon Iowa real
estate at not to exceed half their value?

A. Yes, sir.

Q. And do you also know what was the current rate of interest
upon first mortgages upon city property where the improvements
were taken into consideration?

A. Yes, sir.

Q. Now what was the current rate of interest upon such securities
where the real estate consisted of farm lands and what was the
current rate where the mortgage was upon city property?

A. What was the rate on farm property?

Q. Yes, farm lands.

A. First mortgages on Iowa farms were bringing around six per
cent the first day of January, the first of the year.

Q. Now the balance of the question where the mortgage was upon
city property?

A. Well from six, seven and eight per cent.

Q. That is where the mortgage was the first lien or first mortgage
on city property.

A. Yes, sir.

1853 Q. Where the improvements were considered in the valu-
ation?

A. Yes, sir.

Q. You say that was along about the 1st of January. Has there
been any change in the current rate of interest up to the present
time?

A. Yes, I think there has a trifle; in Iowa farm mortgages the
rate is from five and a half to six today.

Q. You think on the Iowa farm mortgages the prevailing rate
is not quite so high as the first day of January?

A. Between five and a half and six to day and six the first of
the year.

Q. Has there been any other change that you have noticed?

A. No, sir.

Q. I will ask you whether a higher rate of return on money is
expected and usually received where it is invested in business enter-
prises from what it would receive where the investment is in securi-
ties of the character that you have spoken of?

Objected to as incompetent, irrelevant, immaterial and asking for an opinion of this witness upon a matter entirely irrelevant, the question is incompetent in form.

A. Yes, sir.

Q. Now will you explain why that is if you know?

Same objection.

Q. That is why it is that investors expect and usually receive a higher rate of return where they invest their money in a business enterprise than they obtain where they loan it upon first class securities.

Same objection.

A. There is a greater hazard.

1854 Q. Now is it or is it not true that the greater the hazard the greater rate of return on money is expected and usually received.

Same objection.

A. The greater the hazard the higher rate is wanted, the higher the rate that is wanted.

Q. That is, it takes an expected higher rate to overcome an interest capital does it where the risk is greater?

A. Yes, sir.

Q. Now referring to business enterprises what effect does the degree of safety of the business enterprise as viewed by the investing public have upon the rate of return expected from money invested in such enterprises?

A. Do you mean by that a business that is less hazardous than others as to what would be expected?

Q. No, I am not asking for amounts now but asking what effect it has.

A. I answered that, that the greater the hazard, the higher the expectation, the higher the desires for returns.

Q. And is it true that a higher rate must be expected and usually received to overcome the inertia of capital to making investments in that particular business?

Objected to as incompetent.

A. Yes, sir.

Q. How are state and national banks looked upon by the investing public of Des Moines with respect to whether they are or are not safe business enterprises?

A. I think that they are regarded as very safe investments.

Q. Is it or it is not true that state and national banks are regarded by the investing public in Des Moines as being among the
1855 very safest of business enterprises?

A. I think so.

Q. Do you know of any business enterprise in Des Moines which is regarded by the investing public and people generally as safer business enterprises than state or national bank?

A. I do not.

Q. Do you know what was the rate expected and usually received by the investing public upon money invested in state or national banks in the city of Des Moines on or about the 1st day of January of this year? That you may answer yes or no, whether you know that?

A. Why, yes, a general idea as to the other banks, I know what our bank has been doing.

Q. This calls for whether you know, yes or no.

A. In a general way I know.

Q. Now what was the rate of return expected and generally received upon such investments, that is investment now in state or national banks state or national bank stock not confining your rate of return expected necessarily to the dividends declared and paid upon stock but speaking of it in the nature of earnings whether distributed as dividends, held as undivided profits or placed in surplus?

Objected to as incompetent and immaterial.

A. What would be expected?

Q. And generally received?

A. Well I think that the average investor in bank stocks would want to see it earn at least ten per cent.

COURT: Ten per cent over and above taxes?

A. Ten per cent net, earn ten per cent.

1856 Cross-examination by R. O. BRENNAN, Esq.:

Q. I don't suppose they would object if they should get 15 per cent?

A. I don't think they would. I have always found them that way.

Q. What would be the effect, Mr. Miller, if you had but one bank in the city and that had no competition, would that relieve the hazard in any way?

A. No, I would not think that it would.

Q. The fact that you had no competition in the banking business in the city of a hundred thousand people, would that make it a more safe and stable investment than if you had sixteen or eighteen banks?

A. I don't think it would.

Q. Would you say the element of competition is not a hazard in any sense?

A. Well that is something that—that element we have never had in the banking business, I have not given it thought. I would think that if the bank was conducted on right lines that it would make no difference.

Q. Well take it in the great financial center, suppose you had one bank doing all the business, would the investment in that bank be safer than if there were probably fifty banks transacting business?

A. I think if we had the total deposits, the combined deposits of the city of Des Moines on our present capital stock that we could make more money. I believe, I feel quite sure we could.

Q. It would be a safer investment wouldn't it?

A. I think so.

1857 Q. It would relieve the hazard of competition which is an element isn't it that enters into business transactions and investments?

A. It would be same hazard in connection with our loans to make our loans safely but I think that the profit would be greater if we had all of the deposits to handle, that is if we could handle them all as carefully as we handle the one bank.

Q. Well I understood you to say that state and national banks were the safe investments of which you knew?

A. They have proved to be very safe investments in Des Moines.

Q. The regular rate of interest in Iowa is 6 per cent?

A. 8 per cent.

Q. 6 per cent is the legal rate?

A. Yes, sir.

Q. The current rate not to exceed 8?

A. Yes, sir.

Q. Contract rate, you can contract up to 8 per cent?

A. Yes, sir.

Q. Not above that and 6 per cent in the absence of anything in the contracts statijg the amount of interest it is 6 per cent?

A. Yes, sir.

Q. About the 1st of January, 1911, when you say farm mortgages were earning 6 per cent was that anything abnormal about that time of the year, or was that the ordinary and usual rate of interest which obtained say for the year preceding?

A. Well for the past two or three years rates of interest on farm mortgages have been ranging from five and a half to six per cent. Prior to that for a little time they were loaning at five per cent. Prior to that it was even higher, six, seven and eight per cent.

Q. That is going back about 1907?

1858 A. Oh no I mean quite a ways back. That is rates of interest on Iowa mortgages have gradually dropped from 8 per cent down to five and around two or three years ago raised to six and have been higher than that.

Q. There was a slight advance and then a slight decrease again so they are back now to five and a half?

A. Five and a half and six per cent.

Q. Where it is a five years' loan, five or ten year loan they usually ger it for 5 per cent don't they?

A. No, sir; You can't do that now that *that* I know of.

Q. Do you know of any mortgages being executed at five per cent on long term loans?

A. No, sir; I don't know.

Q. Five and a half you think?

A. Yes, sir.

Q. What hazards do you take into account in fixing the rate of return?

A. Well I regard a first mortgage on an Iowa farm well placed has absolutely no hazard whatever.

Q. And what hazards are involved in the other investments?

A. Well there is the usual business hazards.

Q. The other investments to which you have referred?

A. The usual business hazards.

Q. What are some of those?

A. Well investments without security and the credits that a merchant takes or makes without security in the sale of his goods, the rise and fall of his stock on hand.

Q. And his failure to get customers might have something to do with it?

A. Yes, sir.

1859 Q. Now suppose that you had an opportunity to make an investment in a certain business in a city of a hundred thousand people where it involved furnishing a necessity where there was no competition that would make a pretty safe investment wouldn't it?

A. I would think so.

Q. About as good as the Iowa farm wouldn't it?

A. No, sir.

Q. What would be the difference?

A. The usual business hazards.

Q. The usual business hazards?

A. Yes, sir.

Q. That is the element of mismanagement, the element of the failure to get customers, all those things you think would enter into the enterprise I have suggested?

A. Yes, sir.

Q. Where it was a necessity which people must have and where there is no competition?

A. Yes, sir.

Q. And you think that the element of risk and all that, the usual hazard of the usual business would enter in do you?

A. I took that into account did you say?

Q. (Question read.)

A. Yes, sir.

Q. Notwithstanding the article or commodity furnished was a necessity and that competition was eliminated?

A. Yes, sir.

Redirect examination by Hon. GEORGE H. CARR:

1860 Q. You were asked Mr. Miller, with regard to lack of hazard and your opinion with regard to it where the business was one where there was no competition. Now let me ask you supposing that you had a business like the gas company where there is no present competition in the sale of gas but it is a public utility subject to regulation as to the price of its commodity by the public, the property can at any time under the law be taken and condemned by the public, rival institutions may be at any time put in the field by the public, where no contract can be made that is binding for the price of the commodity for a length of time, where under the corporation law of the state the capital must all be paid up in money

when issued, a loan can only be placed for two third- of the capital stock, where the rate may be fixed today and changed tomorrow at the will of the rate making body, the town council, now taking all these matters into consideration and what would — say as to whether there is and would be in the mind of the investing public very great hazards and risk in that sort of business?

Objected to as incompetent, irrelevant, immaterial, leading and suggestive.

A. I would regard the hazard as a great one, yes.

Q. In that connection I will ask you whether there is any capital in Des Moines for investment in public utilities and especially in gas companies.

Objected to for the reasons heretofore urged.

A. It would be my opinion there would be very little money in Des Moines that would be available for that purpose.

Q. And why Mr. Miller?

A. Well there would be more opportunities, there would be opportunities for better investments in my judgment.

1861 Q. Is that because of these many risks and hazards that you have mentioned?

A. Yes, sir.

Recross-examination by R. O. BRENNAN, Esq.:

Q. Do you know of any stock being for sale in Des Moines, gas stock?

A. No, sir.

Q. Have you ever heard of any being offered for sale in Des Moines?

A. No, sir.

Q. Has there ever been an opportunity afforded to the investing public as far as you know to purchase gas stocks and especially the stock of the gas company?

A. No, sir.

Q. Gas stocks are regarded as pretty staple securities aren't they?

A. It would not be so considered by me in this city with this plant.

Q. Well I mean generally speaking over the country on the stock exchange?

Objected to as immaterial, unless confined to states where the state law is the same as it is in Iowa.

A. I would regard it as being an investment with the usual business hazard.

Q. Well you know what consolidated gas is worth on the stock exchange?

A. No, sir; I do not.

Q. Have you looked up the market to see?

A. No, sir.

Q. Have you informed yourself as to the market price of the stock of the consolidated gas company in New York?

A. No, sir.

1862 Q. Or any other gas stocks?

A. No, sir.

Q. Have you attempted to inform yourself on the subject?

A. No, sir.

Q. Or bonds of gas companies?

A. I would think the bonds were a safer proposition than the stock.

Q. Do you know anything about the bonds?

A. No, sir.

Q. About how staple they are on the market?

A. No, sir.

Q. You haven't informed yourself on that subject have you?

— No, sir; I have not looked up the stock or bond market.

Q. Now what would you say about an investment in a railroad company, railroad stocks, does that appeal to you as being surrounded with a great many hazards?

A. Yes, sir.

Q. But railroad stocks are bought and sold every day are they not?

A. Yes, sir.

Q. Pass current?

A. Yes, sir.

Q. Regarded as very staple investments?

A. Not as staple as other investments that a person might be able to select.

Q. You can usually realize on them for collateral can't you?

A. Yes, sir.

Q. If I have railroad stock in the Northwestern I could go to your bank I presume and realize on them?

A. Yes, sir.

Q. Take the 60 cent stocks, do they usually run at par?

A. I could not answer that question, I do not know.

1863 Q. And what would you say as to five per cent bonds, are they sold at par?

A. Yes; a great many of them.

Q. Have you informed yourself as to railroad stocks and bonds as to whether they sell above or below par or at par?

A. I have noticed the quotations.

Q. And what have you observed in that respect?

A. I have observed the market all the way from a very low price to a good big price.

Q. I know generally, but take 6 per cent, six and five per cent bonds what is the general average on the market for that class of security?

A. Well a good five per cent bond of a railroad in good standing ought to sell at par.

Q. Well now an investor in a railroad company his investment has the same element of hazard with regard to regulation as an investor in a gas works hasn't it?

A. Yes, sir.

Q. They sometimes undertake to regulate rates don't they?

A. Yes, but they are — government control.

Q. Under government control?

A. Yes, that is government regulation or attempted by government regulation.

Q. That only affects interstate commerce?

A. Interstate commerce propositions but the city gas plant here is under city control.

Q. But the railroad is not subject to regulation and control by the government except in so far as it is conducting an interstate business, isn't that true?

A. Yes, sir. Otherwise by the state.

1864 Q. So that the rate when it affects the shipper within the state and it is in the state business, then it is subject to state regulation and control?

A. I don't know any state railroad that their bonds would be regarded specially valuable.

Q. What I had in mind was that the railroads which you say furnish a reasonably good investment are subject not only to control by the government with respect to their interstate business but they are also subject to control by every state through which their railroads may run, that is true isn't it?

A. Yes, sir.

Q. That at least have the semblance of regulation in the states going on from time to time?

A. Yes, sir.

Q. Now Mr. Miller, you think it is a great hazard that the state guarantees practically a monopoly to an enterprise. Do you think that is in the nature of a hazard?

Objected to as incompetent, immaterial and so formed it cannot be intelligently answered and for the further reason that as to gas companies the statutes absolutely prohibit an exclusive franchise.

Q. I would like to know what you consider as hazards in connection with a public utility?

A. Your thought is——

Q. Here is a gas company in the city of Des Moines for instance that claims to have approximately 180 miles of mains, spread out all over the 54 miles of territory, and in all the principal streets and situated in the streets of the city so as to make it practically impossible for a competing company to get in here, and with a natural growth and development of the city, having those

1865 things in mind you would not be much afraid of competition would you?

Objected to as assuming a fact that is not so, to-wit, the fact that it would be practically impossible for a competing company to be authorized to do business in the city, contrary to any evidence introduced and contrary to the fact.

A. I would think that if the gas company had a monopoly of the business here that it would aid them in their business.

Q. So that some of the hazards you have been speaking about would be eliminated wouldn't they?

A. Not enough of them to suit me, to make an investment.

Q. That would have some of them out of the way right there?

A. Yes, I would think that would.

Q. Now you were asked about the right of the state to regulate the rates, suppose you knew and it is the law that the rate which is prescribed must be a reasonable rate, that is to say, you are entitled to have the operating expenses and taxes and depreciation, you have got a right to earn all that and over and above that a reasonable return and the courts stand ready and willing to enforce your rights in that respect, isn't that some safeguard to your investment?

A. Would that be a help to the investment?

Q. Some safeguard?

A. Well would they guarantee a certain profit?

Q. They guarantee that you shall earn a reasonable return, earn a profit.

A. That is that you could earn a reasonable profit?

Q. I say the courts stand ready to protect you to that extent.

A. I would think that was a help, yes.

1866 Q. That would eliminate some hazards wouldn't it?

A. It would depend on how much they required for a reasonable profit for the hazard on the investment.

Q. That distinguishes the public utility from the private enterprise?

A. Yes, sir.

Q. So in effect you are guaranteed a monopoly and guaranteed a reasonable return in this state, isn't that true?

A. No, I would not think so.

Q. You would not think so?

A. No, sir; I don't believe there is any state or any nation that guarantees any return that I know of.

Q. Judge Carr has asked you if you would consider all these things as being hazards. The fact that the city may regulate rates and the fact that the city cannot enter into a contract fixing rates and all those things. Now did you consider these other features in connection with your answer?

A. I considered all the features that I had in mind in connection with a business of that kind.

COURT: What was your rate that you fixed for the gas company?

A. I didn't fix any, I was not asked that question.

Witness excused.

1867 SIMON CASADY being called on the part of the complainants and sworn and examined in chief by Hon. George H. Carr, testified as follows:

Q. Where do you live?

A. Des Moines, Iowa.

Q. How long have you lived in Des Moines?

A. All my life.

Q. And what is your age?

A. 58 last June, 16th day of June.

Q. In what business are you engaged?

A. I am engaged in the banking business.

Q. And with what bank are you associated or connected?

A. Central State Bank of Des Moines, Iowa.

Q. What is your position?

A. I am acting president.

Q. How long have you been in the banking business?

A. I have been in the business since 1877.

Q. And it necessarily follows all of that time in Des Moines?

A. Yes, sir; all that time in Des Moines.

Q. To what extent are you acquainted with the financial men and financial institutions not only in Des Moines, but over the state of Iowa generally, Mr. Casady?

A. Oh I have a general acquaintance with the financial situation.

Q. You have among your depositors and *and* have you had during all these years many of the business men of Des Moines who are engaged in manufacturing and mercantile lines and general classes of business?

A. Yes, sir.

Q. And have you become familiar with the view taken by 1868 investors as to what are desirable investments to a greater or less extent?

A. Yes, sir; to a greater or less extent I am somewhat familiar with that.

Q. Aside from your connection with the banking business, what other business enterprises are you connected with?

A. I am not connected with any profit making enterprise outside of the banking business.

Q. Have you any association with any of the insurance companies of Des Moines?

A. I am treasurer of the Bankers Life Association.

Q. Give the Master in a few words something of the volume of the business of that company?

A. Well it is rather extensive, I think it is one of the very few large insurance companies, not so recognized, however, by old line companies, but one of the large insurance companies of the United States.

Q. About what is the volume of its invested capital?

A. About fifteen to sixteen millions.

Q. And you are treasurer of that institution?

A. Yes, sir.

Q. Do you know what was on or about the 1st of January of this year in Des Moines the correct rate of interest upon money invested in first class securities such as first mortgages upon Iowa real estate at not to exceed half their value?

A. Yes I think I do.

Q. What was the current rate of interest upon such securities where the real estate consisted of farm lands and what was the current rate where the mortgage was upon city property if there was any difference?

1869 A. On farm loans I think that the best loans offered will range from five and a half to six and a half, that is within

the last year or two years, I think about that time. And city property it would all be owing whether the rate was higher or lower whether it was residence property or business property. Residence property would bear a higher rate than active income bearing property on our best streets.

Q. About what would be the rates on that class of property?

A. I think the residence property would average from one to two per cent higher than farm loans and the best of income property down on our best streets would equal if not sometimes be a little lower than farm loans.

Q. Has there been any change that you have noticed in the current rates of interest since January 1st upon securities of the character we have been speaking of?

A. Not much. No, practically the same. If any thing a little trifle lower in farm loans.

Q. Farm loans alone?

A. Yes, sir.

Q. Is a higher rate of return upon money expected and usually received where it is invested in a business enterprise over what is received at interest in first class securities?

A. Yes, sir.

Q. Now why?

A. Well because there is no risk in one and there is some risk in the other.

Q. Where one has the opportunity of investing his money in securities of the character we have been talking about, is it regarded by the investing public that there is any particular risk or hazard?

1870 A. None in the farm loans or finest income business property. There is more or less hazard in the residence portion.

Q. That is due to what?

A. That is due to depreciation of the houses and sometimes the temporary quality and way they are built and sometimes the desirability of the location is changed and various things like that.

Q. What are some of the hazards that affect the investing public in Des Moines that makes them demand and receive a higher rate of return upon their money before they will invest in business enterprises than they would be willing to loan their money for upon such securities as you have been speaking of?

Objected to as incompetent, because based upon an assumption that is not in the record and no attempt made to put it in.

A. Money invested in business enterprises is not always in the control of the owner of the fund unless he is in active charge of the business, therefore it is more hazard to him, he has to trust to the judgment and ability of some other party. That is one of the hazards that to me is quite pronounced.

Q. Do you think of any other?

A. If a man has control of his own property he can place it where he thinks it is safe, he feels he is exercising his own judgment, has

a good deal less risk though he may himself make mistakes as well as others, but he feels that way and willing to take a lower rate of interest and chance his money.

Q. What effect does the degree of safety of the business enterprise, as viewed by the investing public, have upon the rate of return from money invested in business enterprises?

A. Oh it has a good deal of effect. A man that feels he is going to get a pretty good return, get better than the law allows him to loan money for will take some chances. That is the reason why we speculate in gold mines and we generally lose it all.

Q. As I understand you, to overcome the inertia of capital the investor takes into consideration the degree of safety in the investment and the rate is in accordance with his view of the degree of safety of the business enterprise in which he puts his money?

Objected to as incompetent and immaterial.

A. Yes, sir.

Q. How are state and national banks looked upon by the investing public of Des Moines in respect to whether they are or are not safe business enterprises?

A. I think that the average investor looks upon them as a reasonably safe proposition when properly officered and managed.

Q. Do you know of any business enterprise in the city of Des Moines which stands higher in the public estimate in this regard or which are regarded as affording a greater degree of safety than state and national *and* banks?

A. No, I think no. I do not.

Q. Do you know, Mr. Casady, what rate of return is expected and usually received by the investing public upon money invested in state or national banks in the city of Des Moines on or about the first day of January this year? That you may answer by yes or no.

A. Yes, I think I know what is to be expected.

Q. What was the rate of return expected and generally received upon such investments not confining the rate of return expected necessarily to dividends declared and paid upon stock, but speaking of it in the sense of earnings, whether it would be in the form of dividends or held as undivided profits or places in surplus?

Objected to as incompetent and immaterial.

A. I think that an investor in bank stock would not be satisfied with less than 10 per cent. I am speaking now of its earning power.

Q. Net earning power?

A. Yes, when I use any rate I mean net.

Q. You say that is or was on or about the 1st of January the rate that was expected and generally received upon such investments?

Same objection.

A. I could say expected, but not received.

Q. Having in mind that one who had money to invest would loan his money in the class of securities that you have been speaking of, where there was little or no hazard, now to induce him to invest his money in any business where there is this hazard that you have spoken of requires this added rate of return to induce him to make such investment?

A. Yes, sir.

Q. Now what rate in your opinion, what rate of return would the investor have to see in it, expect I mean before he could be induced to invest his money in any business enterprise rather than to loan it out in such securities as you have spoken of or loan it upon such securities as you have spoken of?

Objected to as incompetent and immaterial.

A. If one engaged in business he expects a good deal larger return than any return that can possible be expected by any loan investment. It would be all owing in my judgment to the kind of business he was about to engage in whether wholesale grocer or manufacturing or some other purpose. If he would engage in a bank I think he would feel very satisfied and pleased to have it ten per cent and then as much more as the institution might earn. But in a manufactory I don't think that would satisfy him at all. It would not me.

Q. Will you explain to the Master why, whether it is on account of the degree of safety that enters in?

A. Certainly it is the degree of safety and control that he has over his money. If he had it in a manufacturing enterprise he would not be able to dispose of it if there should be any unfortunate conditions surrounding that investment. He can practically always dispose of bank stocks at some figure. He can't always sell manufacturing stocks.

Q. Do you — Mr. Casady how investors in Des Moines look upon investments in public utilities and as to whether there is money available for such investments and if so what rate of return?

Objected to as incompetent and immaterial.

A. I have had opportunity to enlist people in the city of Des Moines to invest in local public utilities and have not been successful.

Q. Just why?

Same objection.

A. Oh for many reasons, political and otherwise. The lack of control or practical lack of control of their own affairs, putting it in the hands of a set of men that are elected by this community to control these affairs and there are very few men that have the possession of a little money want to do that. They would rather keep control of it themselves at a much smaller rate of interest.

Q. To what extent, Mr. Casady, does the law in Iowa, referring more particular to the provisions of our laws preventing a corporation from loaning money to exceed two

thirds of its capital invested and the provision of our law that all capital issued by a corporation must be paid in full, the provision of our law to the effect that the city council are empowered to fix rates cannot make a contract which abridges in any way their right to change the rate at any time they see fit, the fact that the city council may at any time it sees fit make or change a rate, the fact that other enterprises of a like character may be authorized to operate in competition, the fact that the city may at any time it sees fit condemn the property, take it away from the owners, those and some other provisions that may occur to you, what effect do those provisions of the law have upon the investor in determining whether an investment in a public utility like a gas company is a hazardous investment?

Objected to as incompetent, immaterial and it ought to be at least assumed in a court of law that the laws are just and reasonable and ought not to be the subject of expert testimony to impeach them in any way.

A. It does not help him to get investors from the outside public.

Q. The question was what effect would that have on a man, local investor?

A. It has a bad effect. It does not help to get money to invest in these corporations.

Cross-examination by Hon. H. W. BYERS:

Q. Is it your idea that because the laws proceed on the theory that the managers of property shall deal honestly makes a hazard of the business?

1875 A. I don't get what you are at.

Q. A law that requires the capital stock to be paid up does that make a hazard to the business?

A. No, that is not a hazard to the business.

Q. You don't include that in your question?

A. He had so much there I said it didn't tend to induce people to put money into a business.

Q. A law like that is an insurance to good business isn't it?

A. Well I would not enter into a discussion of that because I am not opposed to men paying for their capital, not at all.

Q. Now leaving that because that is a subject that ought not to be brought up especially in a hearing of this kind, you have been an investor practically all of your manhood years?

A. Yes, sir.

Q. And your investments have been for yourself and for your friends and customers?

A. Yes, sir.

Q. And you have confined your investment opportunities as I understand it and as I know something about it, to banking securities largely?

A. To a great extent. I have invested in other things.

Q. But that has been the principal line of your operations.

A. Yes, banking and to real estate.

Q. And to Des Moines all of that time?

A. Practically all the time, some little outside.

Q. Now what would an investor have to pay for a share of bank stock in Des Moines that is netting ten per cent every year?

A. I am unable to answer you that question. I can give you quotations on bank stock, but I can't tell you what it would pay today because I don't know what they are all doing. I know what they would have to do in bank stock in my bank, if you want 1876 me to make it a personal matter I would do that.

Q. Very well, let's do that.

A. He would have to pay \$200.

Q. You until very recently were in the Iowa National Bank as one of the managing officers?

A. Yes, sir.

Q. And that bank stock, do you remember what it was sold for on the market?

A. I left there about two and a half years ago and sold mine for 125.

Q. And what was it paying?

A. Paying 6 per cent.

Q. Six per cent per annum?

A. Yes, and earning more.

Q. It is true isn't it that farm loans are being made right now for as low as four and one half per cent?

A. Not to my knowledge. I pass upon possible thirty or forty thousand a day and I have not made one short of five and a half for two years.

Q. Well you passed on one just the other day for Mr. Caldwell \$24,000 loan for a section of Cass County land, do you remember that?

A. Yes, sir.

Q. Was that loan made?

A. Yes, I think so.

Q. Five and a half?

A. I can't tell you the rate, but it bore so it would give the loan company five and a half. The investor now gets five and a half.

Q. The Bankers Life Insurance Company gets five and a half?

A. Yes, sir.

Q. What is the rate at which improvement certificates in 1877 the city of Des Moines are issued for?

A. They are issued for six per cent.

Q. No lower than that?

A. None that I know of.

Q. How did they sell on the market here?

A. All the way from two to four per cent discount.

Q. What is the usual rate upon the bonds issued by the city of Des Moines?

A. I am not familiar with that. I never made any bid upon any bond of the city of Des Moines or Polk county.

Q. They just recently sold an issue of bonds?

A. I think they went about four, four and fourth or four and a half.

Q. They bring a little premium at that figures?

A. That I know nothing about, I never deal in that kind of stuff.

Q. Mr. Brennan calls my attention to the fact that the city hall bonds drew four per cent and were sold at a premium, you don't remember that?

A. No, sir; I don't know anything about that.

Q. What is the usual rate for the use of money in Des Moines say now at this time or on the 1st of last January for short time loans?

A. In Des Moines I don't believe it has been less than six per cent, may have been some individual cases as low as five and some paper has been sold here by our merchants for less than that in the so-called commercial or note broker's hands. I am speaking of local banks now.

Q. I guess you didn't quite understand my question. What I wanted to know is what is the usual rate over the counter?

A. Six per cent.

1878 Q. For short time loans?

A. I said some few cases down as low as five.

Q. Those loans at six per cent over the counter, short time loans, they average small do they not?

A. They will average all the way from a thousand to five thousand and higher.

Q. Wouldn't it be nearer right to say that they would average much smaller, I mean short time loans—

A. I am speaking of three and four months loans, nothing over four months.

Q. About what would they average in amount?

A. Oh I could not tell you that. We try to get fair size notes rather than little bits of ones.

Q. Rather than small ones?

A. Yes, sir.

Q. What is the usual rate, I mean over the counter at the banks for long time loans?

A. Do you mean loans on real estate.

Q. No, commercial loans.

A. What you call long time loans?

Q. Six months or a year?

A. Six per cent.

Q. If one of the business men of this city wanted to borrow \$20,000 of your bank and would furnish you gilt edge paper to secure the loan, say for ninety days, what would you charge for it?

A. We would charge him today six per cent. We might for one or two cases as a favor loan to him at five or five and a half, but would not be anxious to do it.

Q. Isn't loans made as low as four?

1879 A. Yes, some three or three and three quarters, but not by banks in Des Moines, not to my knowledge. By the commercial brokers on the outside who live in Chicago or Kansas City or St. Louis who will come here to some of our big firms and say to

them can't you use thirty or forty thousand dollars' worth of our money we will make you a rate of three and a half or three quarters or four per cent.

Q. That has been done quite frequently?

A. Done all the time. Then turn around immediately and try to sell us that same paper.

Q. There was such an occasion as that not very long ago representing a large transaction?

A. That takes place here possibly every thirty days in the year except maybe the fall.

Q. What is the lowest rate charged on a loan of that kind?

A. I think three and three quarters this summer. On top of that you must add a quarter for each renewal which makes it possibly four per cent for a year. Each time you renew that loan a quarter per cent brokerage makes it about four per cent each year.

Q. If I understood you correctly, but I don't care to take any more of the time than necessary, but if I understood you correctly you have a preference for bank stocks as investments?

A. No, I have not. I have a preference for stocks that will pay a good return.

Q. That I suppose would be true of everybody if they knew just which ones.

A. By the way some people act I don't think that is so.

Q. That may be true of a good many of us but I want to get at your reason if you can for saying that investments in state and national bank stocks are preferable. If I understood you you measure the security of the investment largely by the kind of control, that is, if you have control of it yourself it makes a good deal of difference to you?

A. Yes, I like it a little bit better.

Q. Now people who invest in bank stock don't have control of the business do they?

A. No, but they are deucedly careful where they shall invest.

Q. Banks are subject to the same hazards of management that any other business is?

A. That is very true, but they are careful. You can't sell all national banks and state bank stocks in this town on the same basis.

Q. Isn't this the reason why bank stock is preferable to investors here and that is because it pays a larger return than some other investments?

A. No, all of them don't.

Q. Well of course if they didn't then they are not all good investments?

A. Well I said to you that it required, the bank required individual handling.

Q. Isn't this the better way to put it to say investments in state and national banks, that the preference if there is any in the way of investments is stock whether it be banks or what it may be that have a good strong earning power and that earning continued throughout a period of years, isn't that the better way to put it?

A. Well that is all right a stock that carries a good earning power right along has its value.

Q. Now isn't that exactly the way investors determine the 1881 question as to the desirability of the investment by the earning power.

A. I would think so, yes.

Q. And the permanency of the period over which it will earn money?

A. Yes, sir.

Q. And as I take it you do not want to be understood as stating here that state and national bank stock- are any more desirable or any safer or any better than different stocks in other enterprises with the same earning power and the earning continued over substantially the same period.

A. Generally with a great many people who are seeking investments and relying upon someone to advise them I think that they would much prefer a bank stock if it was all right and properly conducted than they would a manufacturing or commercial enterprise such as a store.

Q. Of course it might be an enterprise subject entirely to changing conditions that any one—

A. Some that prefer that kind.

Q. Take all other enterprises with earning capacity which covers substantially long years and is as permanent as state and national banks, in all such cases, an investment there is just as good as a bank?

A. Well a great many people have to be shown in that respect, they would prefer a bank if everything else was equal and prefer a bank for a little less in earning power.

Q. That is because they have more confidence in a bank?

A. Possibly that is true. I am not able to say, but that is true I think.

Q. Take it here in the city of Des Moines for instance, you don't think that bank stock is any safer than stock in Younker 1882 Bros., do you?

A. Yes, I do. There is a great deal more earning power in Younker Bros. than in any bank in town.

Q. It depends on the earning power?

A. I say the earning power in Younker Bros. is much more than any bank in town and yet I prefer the bank and 90 per cent of investors who have a thousand or five hundred dollars or a few thousand dollars to invest prefer it.

Q. I have an impression from your testimony and what we all know about you, that you have a very distinct preference for investments along banking lines, that has been your life work?

A. I want to bring the idea to you there if I can make myself plain to you that a commercial house such as Younker Bros., is far more hazardous than any bank in the city of Des Moines.

Q. What makes it so?

A. Because of the change in style, caprice of the people who have to patronize the store in order to make profits there and all that sort

of thing. They may make a great big profit and they may make a very small profit, but they are very successful men.

Q. Then we get back to the proposition that the desirability of the bank investment is due to the fact that the rates that may be charged for money are very well fixed and settled, they are regular and continuous and the business is carried on with little expense.

A. I don't think so. The expense is enormous.

Q. Well I expect that is so. The business of the bank, the rates are pretty well fixed, you can tell pretty well the first of the year about what you are going to have at the last of the year, taking the average—

A. No, we are always glad at the end of the six months that we have as good a six months and hoping the next six months will be equally favorable. We can't tell because we don't know what we will do, we don't know what sort of condition we will run up against. Nobody saw what was to happen in 1907.

Q. Not absolutely, but you can take the last twenty five years of your bank life and run over it and it will average about the same year in and year out with a little steady upward tendency, isn't that so?

A. Well I will have to confess I have been extremely fortunate.

Q. The reason now why money turned out over the bank counter is a better investment than in some of these other enterprises, is because the return is more certain and more definite and more fixed, isn't that so?

A. Well it suits me I said and I think it is to a great lot of people who have a small amount of money to invest.

Q. So if you were called upon to advise a friend of yours with reference to an investment and would go and examine the property if it was an enterprise that engaged in manufacturing, or whatever it might be over a period of years, and if you could find that the output was regular and steady and that every year the fixed charges were about the same and the net earnings were increasing steadily every single year of the history of the enterprise, the upward tendency being a considerable per cent every year over the preceding year, that kind of investment would appeal to you wouldn't it just as a banking business?

A. Well I would want to know a little bit more than what you state. I like what you have stated very well, but I would want a little more than that, want to know what kind of a manufacturing plant it was and who was controlling it.

Q. What difference would it make if it was making money?

A. It might be once you got your money in you might not get it out.

1884 Q. Suppose they were making a commodity the demand for which constantly increased instead of diminished, and everybody will concede that, and the history of the plant itself will show that that has been true, then what would you say, wouldn't you say that it was pretty good stuff?

A. Well I guess I can understand what you are leading to, but if you would ask straight out what it was, I would advise them to keep

out of it, I would indeed. I never told a friend in my life to do that, advise my friends to keep away from it.

Q. You must remember you are just a witness here.

A. I know it, but I would advise it on that business.

Q. You are volunteering something wholly improper now.

A. I beg your pardon. I would rather you would ask me straight out so I would know the situation.

Q. No, we will proceed just as counsel and witness, and I am going to treat you right.

(Question read.)

A. I can't change my answer to that because I must know more definitely what the institution is, what it manufactures and what it is going to pay.

Q. Suppose it was the manufacture of soap?

A. Then I would have some doubts about it because I would not know enough about soap and would want to investigate all the things entering into the manufacture of soap.

Q. If it had earned and returned a large per cent on the investment every year for twenty five years and the prospect for the future was equally as good as the past you would not regard that as of very great importance?

A. Yes, I would regard it as important, but would not invest in it without I knew the facts more in detail than you have
1885 stated and what the future control might possibly be.

Q. Suppose it was standard oil?

A. I would not touch it. I had an opportunity and would not touch it.

Q. You would not touch it at all?

A. I could have made money by doing it too, but I didn't touch it. I am glad you spoke about that because there is an actual case in my life.

Q. You are giving your answers entirely on likes and dislikes?

A. No, I may use the wrong word in giving these answers, but I would not advise it.

Q. You would have made a lot of money off of the standard stock?

A. I possibly would have made some money, but I don't advise it. I don't want it.

Q. One time you say the question of the desirability of the security is settled largely by its earning power and the regularity of the earnings. Now you say that there are some kinds of stock you would not touch at all even if the earnings were ever so large.

A. I think some stock I would not touch. I am speaking now more of the advice I might give people who ask me.

Q. The last six years do you know of any gas company stock that has been for sale in this town?

A. I can't answer you whether I have had any correspondence on that subject in six years or not, but I have had inquiry as to whether there was any market for gas or water or street railway stock in this town.

Q. In the last six years?

A. In the last six years, I don't recollect whether I had gas or not,

but I have had information upon these subjects, I suppose I 1886 have had about gas, but I can't tell you that.

Q. Do you know what the market value of gas stock is in Des Moines just now?

A. No, sir; I do not.

Q. To sum this whole matter up if I understand you the securities of the city of Des Moines, its bonds sell on the market for at least four per cent, its improvement certificates sell readily on the market for six per cent—

A. Those are not city of Des Moines six per cent, they are against the abutting property.

Q. They are improvement certificates?

A. They are against abutting property, that is the same as a tax none of us bet away from that.

Q. They go at about six per cent do they not?

A. Yes, with a little discount.

Q. And loans over the bank counter, short time loans go at six per cent?

A. Yes, sir.

Q. Loans for six months or nine months go about six per cent?

A. I don't know about nine months, don't make them.

Q. Well six months.

A. Four to six months.

Q. And farm loans five and a half to six?

A. Five and a half to six per cent.

Q. Depending on the size of the loan somewhat?

A. Size of the loan and quality of the farm.

Q. And brick business blocks in the business center of Des Moines carry loans at from four and a half to five and a half?

A. Not good brick blocks, but income bearing property I don't care whether it has anything on it or not, just — it is good in- 1887 come property.

Q. I mean that kind of property carries loans at four and a half to six per cent?

A. Yes, that is right.

Q. And money plentiful at that for that kind of security?

A. Yes, reasonably so.

Q. And commercial paper like the notes of the business concerns of Des Moines have sold within recent months and during recent years at as low as three and one half per cent.

A. You must add commission, that means four per cent, that is average four per cent.

Q. Residence properties carry loans in the market where they can be carried readily at from five and a half to seven per cent.

A. Six and a half to seven and a half.

Q. And that has been true for several years in Des Moines hasn't it?

A. I think so.

COURT: Let's see if I understand you. You don't advise investment in anything that is speculative?

A. None whatever.

COURT: Whether standard oil or anything else.

A. Whether standard oil, railroad stocks or anything of that character.

Q. You put railroad stocks in with standard oil too?

A. They are speculative pure and simple.

Q. Speculative, you mean by that they fluctuate in value constantly.

A. Yes, sir.

Q. Day in and day out and for that reason you call them speculative?

A. Yes, sir.

1888 Redirect examination by Hon. GEORGE H. CARR:

Q. You told General Byers to get any stock in your bank a man would have to pay \$200 per share.

A. Yes, sir. I didn't mean to quote a price in this audience.

Q. Is that based on any assumed earning capacity of the bank? Or upon the actual earning capacity of your bank?

A. Actual earning capacity of the bank.

Q. The way the question was put there was an assumption of the earning capacity and your answer was based not upon the assumption of that capacity but on the earning power?

A. Earning power of that bank so far, yes.

Q. You were asked about the bonds of the city of Des Moines, some issue of bonds being placed at four or four and a half per cent. Do you know where that money came from that went in those bonds?

A. No, I do not.

Q. Do you know whether it came from the local market?

A. It did not come from Des Moines, came from the east I imagine, I don't know where.

Q. What is the fact, speaking generally, about rates of interest on money in the east as compared with rates of interest on money in Des Moines?

A. Oh very much less.

Q. You were asked as to whether there was any market for gas stock in Des Moines. I think you said you didn't know. Do you know of any market in Des Moines for the Des Moines Gas Company's stock?

A. No, I do not.

Q. There is no market here that you know of?

1889 A. Not that I know of.

Q. You were asked as to advising a friend to make an investment. Suppose a friend should come to you for advice as to investing money would you advise such a friend to invest his money in a business enterprise instead of an investment of the money in securities of the character of which you have spoken, first mortgage loans on real estate unless the rate of return was materially higher than the rate of return that could be obtained upon the investment in the real estate security?

A. If it came from a widow or from a guardian, I would advise putting it in securities as a sure thing. If it came from some man a little inclined to speculate I would tell him to take a chance if he wanted to.

Q. Would you advise him to invest in a business enterprise at the same rate of interest he could invest in the securities?

A. No, sir; I would not.

Q. How much greater rate of interest would you have to see in the prospect before you would advise a friend to invest his money in a business enterprise.

Objected to as incompetent, not re-examination and immaterial.

A. If he had a very big clear return offered him and could take the chances on that I might advise him but I might hesitate under such circumstances?

Q. Yes, but how much would you have to see or know from your experience and knowledge over and above the return that he could receive upon the investment in the securities we have been talking about before you would advise him to invest it? Take the banking business for example which you recognize as among the very safest of business enterprises?

1890 A. I would not want to invest my money in a bank unless it paid me 10 per cent net with a prospect of more in addition.

Q. Would you advise a friend to invest in a bank unless there was good assurance of such a return rather than to invest his money in real estate securities?

A. I would.

Q. And how about the investing public?

A. The investing public I don't think want to take very much chance.

Q. And it would require that much then?

A. Yes, require a very material advance.

Q. To move money into that line of investment?

A. It would a very material advance.

Q. You have been asked placing municipal bonds or attempting to place municipal bonds in Des Moines. Do you know anything about the history of the effort to place telephone bonds in Des Moines?

A. I know something from hearsay about that. I never invested any. Quite a number of my friends did.

Q. And what is your information on the subject?

Objected to as incompetent and immaterial.

A. It was not satisfactory to those who invested in the bonds.

Q. You drew a comparison between some personal enterprise like Yonker Bros., and banks in your cross examination and you have stated that investors have to expect a return of at least ten per cent net on investments in banks and you have also stated that in your judgment the investing public looks upon banks as the safest of business enterprises or at least as safe as the safest. Now will you

tell the Master what in your judgment the investing public in Des Moines would have to expect in the way of a return upon investments in a well conducted business enterprise of a commercial character or manufacturing enterprise.

Objected to as all gone over, a mere repetition.

Q. Would it or would it not be something in excess of the amount it would have to see in a bank investment or what would it be?

A. I would not think they would want to expect, I should think they would want to be assured of at least ten per cent.

Q. In any kind of business enterprise?

A. Yes, sir.

Q. That is to say before the investing public could be induced to put their money in a commercial or manufacturing enterprise they would have to see assurance of at least a ten per cent net return upon their money.

A. That is my judgment.

Q. You have already said something on the subject and I want to put this question to you, how does the investing public in the city of Des Moines look upon investment in public utilities in the city of Des Moines with respect to the desirability of such investments?

Objected to as incompetent, the witness is incompetent to testify what the public thinks about it.

A. I don't think they look upon them favorably at all. I think they rather avoid them.

Recross-examination by Hon. H. W. BYERS:

Q. You said Mr. Casday that your friends' experience in the telephone business was not entirely satisfactory. Some of them have had the same kind of experience with banks, haven't they?

1892 A. Oh sure, yes. Banks have not proven always successful.

Q. The only reason I inquire about it is to see if I can tell how you measure desirability of stock. You say your own stock you would not think of selling for less than \$200 a share. Now what is its earning power, about in round numbers?

A. That was gone over pretty thoroughly at the legislature last winter. I am perfectly willing to answer. We have not earned less than 20 per cent for quite a number of years. I won't say whether any more or not, but we have not earned less than 20.

Q. That is evidently a very satisfactory investment?

A. Very satisfactory, yes. I am pleased with it and delighted.

Redirect examination by Hon. GEORGE H. CARR:

Q. You stated that the investing public in Des Moines did not look favorably upon investments in public utilities. I wish you would state to the Master why that is so.

Objected to as incompetent and immaterial.

COURT: I think you fully explained that. If there is anything else you want to say about it, you may add it.

A. I don't think of anything else.

Q. Nothing occurs to you to add to what you have already said?

A. I don't know of anything I can add except I don't like anything that I don't have some control over. I don't want to leave it in the hands of men living down there at the city hall much as I respect them as friends otherwise, I don't think they are fellows that handle my business as well as I can myself.

COURT: In other words you want to boss your own job?

A. Want to boss my own job and I don't think they know as much about it as I do if I am conceited about it.

Witness excused.

1893 W. J. HAGENAH being continued on redirect examination by N. T. Guernsey, Esq., testified as follows:

Q. Calling your attention to this paper marked Exhibit No. 31, I will ask you Mr. Hagenah, whether you have checked that so that you can say whether it is a correct statement of the working capital as shown by the books of the company on the 31st of December, 1910?

A. This table is taken from the balance sheet of the company at the end of 1910 and shows correctly the item of material and supplies, accounts receivable, cash, advance insurance and the item of accounts payable.

Q. Those are the items contained in the statement aside from the additions and subtractions?

A. Yes, sir.

Mr. GUERNSEY: We offer Exhibit No. 31.

Same objection.

Mr. GUERNSEY: I think that is all except we have three or four other exhibits that have not been sufficiently rechecked that I will recall Mr. Hagenah to offer.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

1894 Wednesday Morning Session.

Aug. 9, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of complainant resumed as follows:

WILLIAM J. HAGENAH, re-called for further re-direct examination, examined by N. T. Guernsey, Esq., testified:

Q. Mr. Hagenah, I call your attention to the paper marked Complainant's Exhibit 32, and ask you whether that is a compilation showing the gas sales in Des Moines for the first six months of the current year as shown by the books of the Company?

A. It is; and it also shows the sales in Valley Junction for the same period.

Q. And these gas sales in Des Moines shown by that are divided in what way, or classified in what way?

A. They are classified to show the sales to general consumers through regular meters and prepaid meters as well as for public street lamps, private lamps and the amount used by the Company.

Q. Then what is there here in the way of comparison between the sales for each of the first six months this year and the sales for the corresponding months last year?

A. There is a comparison between the sales of the first six months of 1911 with each of the corresponding months in 1910, the column showing the increase in cubic feet and the per cent of increase for each month.

Q. Where the months do not happen to have the same number of days in each year, does that in any way affect the returns for *such* particular month?

A. It does not over a period of six months.

Q. It would for a single month?

1895 A. Yes, the meters might not be right for single days, but over a period it would be absolutely accurate.

Complainant offers Exhibit 32 in evidence. To this offer defendants make the same objection heretofore made to the other exhibits.

Q. I call your attention to the paper marked Complainant's Exhibit 33, and headed, "Statistical Data" and ask you whether you have checked this with the books of the company except as to population?

A. I have checked this statement with the books and records of the company, with the exception of the column showing population.

Q. And is it correct?

A. It is.

Complainant offers Exhibit 33 in evidence.

To this offer defendants make the same objection heretofore made to the other exhibits.

Q. I call your attention to the paper marked Exhibit 34, headed "Detailed Statement Gas Sold in Cubic Feet June 30, 1888, to December 31, 1910." Have you checked the total sales shown under the column headed "Totals" in this exhibit with the books of the Company?

A. I have.

Q. Are they correct?

A. They show the facts as they appear on the Company's books.

Q. You have not had time to check those other columns yet?

A. Not all of them.

Mr. GUERNSEY: Now I would like to ask counsel for the City whether they want to have those details checked or not. The totals have been checked and the items have not been checked.

Mr. BRENNAN: If the totals have been checked I suppose 1896 that is all we need at this time.

Mr. GUERNSEY: If you desire to have those other items checked, you let us know?

Mr. BRENNAN: Yes, sir.

Complainant offers Exhibit 34 in evidence. To this offer defendants make the same objection heretofore made to the other exhibits.

Q. Now, Exhibit 35, Mr. Hagenah, is a detailed statement, is it not, of facts with reference to meters that are summarized in one of these other statements which you have identified here?

A. Yes, sir.

The MASTER: The per cent of increase, what is that reckoned on?

A. The preceding year.

Q. This exhibit to which your attention is just called you believe to be correct?

A. Yes, sir.

Complainant offers Exhibit 35 in evidence. To this offer defendants make the same objection heretofore made to the other exhibits.

Q. Referring to the paper marked Exhibit 36, I wish you would state what that is, headed "Percentage Schedule."

A. That table contains an analysis in unit terms of the population, the amount of gas sales, the revenue and the operating expenses per meter per mile of main and per capita.

Q. Beginning when?

A. Covering the years from 1887 up to and including the year 1910. It shows the comparison of increase in the column of gas sales.

Q. Under population it shows two columns, first the population per meter for each year and then the population per mile of 1897 main for each year?

A. Yes, sir.

Q. What does M C. F. mean?

A. Number of thousand cubic feet.

Q. And under this general heading "Gas Sales" it shows in the first column the per cent of increase, in the next column the sales per capita, in the next column the sales per meter, and the next column the sales per mile of main?

A. Yes, sir.

Q. Then under revenue, it shows under the first column the revenue per thousand cubic feet for the year in question, the next column the revenue per meter, the next column the revenue per capita, the next column the revenue per mile of main?

A. Yes, sir.

Q. And under operating expenses it shows under the first column the burner cost per M C. F. What do you mean by burner cost?

A. That is the cost to the customer and is used to distinguish unit cost from the holder cost; I mean the cost to the customer, not the price.

Q. If I may put it in the language of a non-expert, does it mean the cost of the gas delivered at the burner where the customer uses it?

A. It does, but in this table it does not include all the expenses because the depreciation had not been added to the cost up to that time, which should be added.

Q. Well, the next item, headed "Per Meter" is the same cost for each meter?

A. Yes, sir.

Q. The next item is the same cost per capita?

A. Yes, sir.

1898 Q. And the next is the same cost per mile of main?

A. Yes, sir.

Complainant offers in evidence Exhibit 36. To this offer defendants make the same objection heretofore made to the other exhibits.

The MASTER: You included all expenses in this burner cost, I understand, except depreciation?

A. Yes, sir.

The MASTER: And that 1911, the burner cost of the gas is a little less than two-thirds of one dollar?

A. Yes, excluding depreciation.

The MASTER: In other words, 66.47 of .6647.

A. Yes, sir.

The MASTER: That shows an increase over the previous year of nearly four per cent.

A. No, nearly four cents.

The MASTER: And over the year preceding that nearly seven cents?

A. Yes, sir.

The MASTER: And over the year preceding that, 1908, of nearly two cents?

A. Yes, sir.

The MASTER: A little over two cents.

A. Which year are you comparing now?

The MASTER: 1908.

A. Well, it is 2.4 over 1908.

The MASTER: That includes all the material used in the manufacture of gas, the labor and salaries?

A. Yes, sir, manufacturing and salaries.

1899 The MASTER: It does not include any interest?

A. No, sir; nor depreciation.

The MASTER: It includes taxes?

A. Yes, sir.

The MASTER: And includes the special tax of two per cent.

A. Yes, sir.

The MASTER: Everything is included except depreciation?

A. Everything except depreciation and the interest on the investment.

In connection with the examination of this witness we want to offer from the classification of gas accounts by the Public Service Commission, Second District in the State of New York, Section G281 on page 15, Section G282 on page 16, Section G283 on page 16, Section G284 on page 16, Section G285 on page 16, Section G286 on page 17, which sections are as follows:

Mr. GUERNSEY: If there is no objection I will hand the book to the reporter and let him copy the sections into the record instead of reading them at this time.

Mr. BYERS: What is the name of the book?

Mr. GUERNSEY: It is entitled "State of New York, Public Service Commission, Second District. Uniform System of Accounts for Gas Corporations. Adopted October 21, 1908." It purports to be published by authority of that Commission.

Defendants object to the offer as made as being incompetent, irrelevant and immaterial.

Mr. GUERNSEY: Do you object to the identification of the book?

Mr. BRENNAN: No.

The foregoing offer reads as follows:

1900 "G281. Engineering and Superintendence.

"Charge to this account all expenditures for services of engineers, draftsmen, and superintendents employed on preliminary and construction work, and all expenses incident to the work, when such disbursements cannot be assigned to specific construction.

NOTE.—When employees enumerated above are engaged in work not chargeable to construction, their pay and expenses shall be charged to the specific work on which engaged."

"G282. Law Expenditures During Construction.

"Charge to this account general expenditures of the following nature incurred in connection with the construction of a gas plant; namely, the pay and expenses of all counsel, solicitors, and attorneys, their clerks and attendants, and expenses of their offices; printing briefs, legal forms, testimony, reports, etc., payments to arbitrators for the settlement of disputed questions; costs of suit and payments of special fees, notarial fees, and witness fees; and expenses connected with taking depositions; also all legal and court expenses.

"When any of the expenditures above enumerated can be charged directly to the account for which incurred, they shall be so charged and not to this account. Expenditures in connection with the acquisition of the right of way or other land shall be charged to account No. G110, 'Land Devoted to Gas Operations.' Law expenditures in connection with the organization of the corporation shall be charged to account No. 101, 'Organization.'"

"G283. Injuries During Construction.

"Charge to this account all expenditures incident to injuries to persons when caused directly in connection with construction of gas plant and equipment; proportion of salaries and expenses of physicians and surgeons; nursing and hospital attendance, medical and surgical supplies, artificial limbs, railroad and carriage fares for conveying injured persons and attendants; funeral expenses (including payments to undertakers); proportion of pay and expenses of claim

adjusters and their clerks, and pay and expenses of employees and others called in consultation in relation to the adjustment of claims coming under this head; also witness fees and amount of final judgments."

1901

"G284. Taxes During Construction.

"Charge to this account all taxes and assessments levied and paid on property belonging to the corporation while under construction and before the plant is opened for commercial operation, except special taxes assessed for street and other improvements, such as grading, sewerage, curbing, guttering, paving, sidewalks, etc., which shall be charged to the account to which the property benefited is charged."

"G285. Miscellaneous Construction Expenditures.

"Charge to this account the salaries and expenses of executive and general officers of a gas plant under construction; clerks in general offices engaged on construction accounts or work; rent and repair of general offices when rented, with the office expenses; insurance during construction; also all construction and equipment items of a special and incidental nature which cannot properly be charged to any other account in this classification.

NOTE A.—This account may include a suitable proportion of store expenses when such expenses are not assignable to specific materials.

NOTE B.—This account shall not include any costs of organization, or any costs or discount connected with the issue and disposal of stocks, funded debt, or other securities, and commercial paper."

"G286. Interest During Construction.

"Charge to this account the interest accrued upon all moneys (and credits available upon demand) acquired for use in connection with the construction and equipment of the property from the time of such acquisition until the construction is ready for use. Interest receivable accrued upon such moneys and credits shall be credited to this account. To this account shall also be credited discounts realized through prompt payment of bills for materials and supplies used in construction unless such discounts are credited to the particular bills."

Complainant also offers in evidence from "Uniform Classification of Accounts for Gas Utilities prescribed by the Railroad Commission of Wisconsin, November, 1908, dated Madison, April, 1909," beginning on page 79 with the paragraph headed, "Miscellaneous Construction and Equipment Expenditures"; also the next paragraph headed "Salaries During Construction;" also the next paragraph on page 80, headed "Office Supplies and Expenses during Construction"; also the next paragraph on page 80, headed "Stationery and Printing During Construction"; also the final paragraph on page 80 and running over on page 81, headed

"Law Expenses During Construction;" also the paragraph on page 81, headed "Injuries and Damages During Construction;" also all the paragraphs on page 82, headed respectively, "Insurance During Construction," "Taxes During Construction," "Interest During Construction"; also the paragraph at the top of page 83, headed "Discount on Bonds During Construction"; also the paragraph on page 83 headed "Miscellaneous Expenditures During Construction."

Mr. GUERNSEY: We ask that the reporter copy this from the book instead of reading it here; it won't take so much time and it will be easier to get it accurate.

The defendants object to the offer as made as incompetent, immaterial, irrelevant to any issues in this case.

Mr. GUERNSEY: There is no objection as to the identification of the book?

Mr. BYERS: I guess the book is all right; I haven't seen it.

The foregoing offer reads as follows:

1903 "Miscellaneous Construction and Equipment Expenditures.

Accounts shall be opened as indicated below to which shall be charged all expenditures incurred during construction and before the operation of the gas utility, of the character indicated by the title of the accounts. If expenditures are incurred for the service of engineers, superintendents and other technical skill of an advisory character during the process of construction and such items are not chargeable to any of the following accounts, there may be opened the account engineering and superintendence.

The following detailed accounts should be kept of the expenditures during construction:

"Salaries During Construction.

Charge this account with the salaries of all general officers and general office assistants during the period of construction of the gas utility plant and up to the production and sale of gas.

"Office Supplies and Expenses During Construction.

Charge this account with the cost of all office supplies and expenses incurred during the process of construction of the plant up to the time of manufacture and sale of gas, such as messenger and janitor service, rent of premises occupied during construction, water, light, heat, telegrams, exchange on remittances, etc.

"Stationery and Printing During Construction.

Charge this account with the cost of all stationery, printing, postage, blanks, record books, etc., used during the construction of the plant and up to the time of manufacture and sale of gas.

"Law Expenses During Construction.

Charge to this account all law expenses incurred during the period of construction of the gas plant. Charge with the salaries and

expenses of counsel, solicitors and general attorneys, their clerks and attendants, etc., Charge also with the cost of law books, printing briefs, legal forms, testimony, reports, fees and retainers of the general counsel and attorneys, court costs and payments of specific notarial and witness fees, expense of taking deposition, and general law and court expenses during construction. Expenses of arbitrators

of disputed points will also be charged to this account. When
1904 any of the expenditures above enumerated can be charged directly to the account for whose benefit they were incurred, they shall be so charged and not to this account. Thus, expenditures in connection with the acquisition of land to be occupied by the works shall be charged to the appropriate construction account. Law expenses in connection with the organization of the utility, whenever such can be definitely ascertained, shall be charged to the account organization.

"Injuries and Damages During Construction.

Charge to this account all damages to or destruction of property other than that owned by the utility, caused directly in connection with the construction of the gas works, and all expenses incident to injuries or death of employes and other persons for which injuries or death the utility is held liable or in the settlement of which claims allowances are made. This includes such items of expense as judgments for damages and plaintiff's court costs; proportion of salaries and expenses or fees of physicians and surgeons, expenses of undertaker, nurses and hospital expenses, medical and surgical supplies, contributions to hospitals during the period of construction of the plant, transportation of injured persons and wages and salaries paid to employes while disabled. The salaries and expenses of the utility's claim agents, adjusters and their assistants while engaged upon settling such claims arising during construction will be charged to this account. The compensations of the general solicitors or counsel of the utility while engaged in the defense and settlement of damage suits will also be charged to this account.

"Insurance During Construction.

Charge to this account all premiums paid to insurance companies for fire, casualty, boiler, fidelity and other insurance covering risks during construction of the gas works and its equipment.

"Taxes During Construction.

Charge to this account all taxes and assessments levied and paid on property belonging to the gas utility while under construction and before the plant has begun operations, except special assessments for street and other improvements, such as grading, curbing,
1905 paving, sidewalks, sewer, etc., which shall be charged to the account to which the property benefitted has been charged.

"Interest During Construction.

Charge to this account the interest accrued upon all money and claims payable upon demand acquired for use in connection with the construction and equipment of the gas works from the time of such acquisition until the works are ready for commercial use. Interest receivable accrued upon such moneys and claims shall be credited to this account.

"Discount on Bonds During Construction.

To this account may be charged the discount on bonds sold for construction purposes. The entries to such account shall be made with sufficient detail to permit of their identification and shall show the date when the bonds to which the discount applies were authorized, when issued and when sold, to whom sold, the amount realized from the sale, the purpose for which the bonds were sold, and the application of the proceeds; all of which details will be called for by the Railroad Commission.

"Miscellaneous Expenditures During Construction.

Charge to this account all expenditures incurred during construction not includible in any of the preceding accounts."

Mr. GUERNSEY: I think that is all of the re-direct.

Recross-examination by Mr. BRENNAN:

Q. Now, Mr. Hagenah, I want first to take up with you this morning a little more in detail with respect to your table shown at page 43 of Exhibit 23; I want to have a clearer understanding of your method of arriving at the value of this investment as illustrated by that table. Now the first figures in the left hand column 1906 purport to be the value of the plant at the beginning of the year; I presume that refers to the twelve months ending June 30th, 1887?

A. Yes, sir.

Q. Which you show to be \$308,983.

A. Yes, sir.

Q. Now, as I understand it, Mr. Hagenah, the amount of \$308,983 is the amount which you found on the books of the company which represented the value of the plant at that time?

A. Plus working capital at that time.

Q. That is what I wanted to know, whether in that \$308,983, there is included therein anything as working capital and if so, please state how much?

A. The amount \$308,983, included an allowance for working capital. The cost of the plant at the close of the period June 30, 1886, was \$295,383 as shown in the last column in the table marked Schedule 1, Exhibit B in my report.

Mr. BYERS: That was at the end of the year 1886?

A. 1886. And the amount included in the \$308,983 contains therefore the difference between that amount and the total cost of the plant at the end of 1886, showing an allowance for working capital to the amount of \$13,600.

Q. That is \$295,387.

A. \$295,383.

Q. So then with respect to that item \$308,983 includes \$13,600 as working capital?

A. Yes, sir.

Q. And the \$295,383 represents the actual value of the plant at the close of the year as shown by the books of the Company?

A. No, sir; it represents the cost of the plant at that time.

Q. The cost of the plant at that time and nothing else?

1907 A. No.

Q. Now, I wish you would explain to us just how you arrived at the \$13,600 as working capital during that year.

A. That was obtained from the balance sheet of the company on June 30, 1886, and was determined from the analysis of the current assets and current liability items as of that date.

Q. Do you have that balance sheet set forth in your report Exhibit 23?

A. No, sir.

Q. Or in any schedules identified by you and offered as exhibits in this case?

A. I have not.

Q. Have you a copy of the balance sheet among any papers or memoranda?

A. No, sir.

Q. What book or ledger is that in, do you know?

A. For 1886.

Q. The ledger of the company for the year 1886?

A. Yes, sir; the ledger and the journal and cash books; the regular set of books of the company at that time.

Q. Could you have a copy of this balance sheet to which you have referred, at the opening of court this afternoon, Mr. Hagenah?

A. I don't know whether I can or not.

Q. If the company will furnish that for you, you will bring it in?

A. Yes.

Mr. READ: If the court please, the experts of the city have those books now and they can make copies if they desire to.

Mr. BYERS: The city is not furnishing proof in this case.

Mr. BRENNAN: We want the balance sheet, if your honor please, to check up on this question here of working capital, to arrive at his analysis of this item.

1908 Mr. READ: It is contained in the books and you have the books in your possession. What do you want us to do, make a copy for you?

Mr. BYERS: Yes.

The MASTER: Of course, if they insist on it, they are entitled to have that balance sheet.

Mr. READ: The books can be brought in.

Mr. BYERS: We simply want a copy of the material he used in arriving at this working capital.

The MASTER: How large a thing is it?

A. Well it would take some time to prepare the balance sheet and go over the records.

The MASTER: I am talking about the one you have got this from.

A. It would take quite a little while.

The MASTER: Did you compile it?

A. I got the balance sheet as of that date from the Company's books.

The MASTER: The balance sheet you got from the Company's books, is that lengthy?

A. Yes, it would necessitate going over a good many accounts.

The MASTER: Either I don't understand the witness or he don't understand me. I understood him to say that he got a balance sheet; you made a balance sheet from the books?

A. I did not make the balance sheet myself; the records were shown to me and the trial balance and the balance sheet was verified to be correct with the books and from the trial balance and the books at that time I computed that the working capital was reasonably \$13,600.

The MASTER: How large was the balance sheet?

A. As to the number of items it contained?

1909 The MASTER: Yes.

A. I don't suppose it contains over 12 or 14 items; though the details of those items before they are put into the balance sheet—

Mr. BRENNAN: We want this balance sheet.

Q. Turn to page three of your report and tell the Master whether this balance sheet you refer to is any more complicated than the copy which is used there?

A. No, it is not; but it is a good deal of work to prepare one.

Q. Didn't you have it?

A. Yes, I had it; but I haven't got it now.

Q. Where is it?

A. They have it.

Q. When did you turn it back to the Company?

A. When I completed my work.

Q. So that you returned this balance sheet to the Company as they had given it to you?

A. Certainly; all their records I turned back to them; they did not belong to me.

The MASTER: If you can make a copy of it readily, you may do so. If you can not, you might bring the books. The books as I understand it are in your possession, in the possession of your experts now.

Mr. BYERS: The books are in the office of the company and our experts are working on them there.

Mr. READ: Any book or record the Company has in its possession can be brought down here.

Mr. BRENNAN: Here is a witness in connection with the report made here. The company supplied him with a balance sheet for this year and he says he returned that to the Company. 1910 We are entitled to a copy of that balance sheet which was furnished to this witness.

The MASTER: Here is the idea: Under his calculation they want from this witness that balance sheet, if that can be readily gotten.

Mr. READ: They have been told that these records from which this witness got this information was in the books.

The MASTER: That may take a long while. Of course this table is made up figuring the value of this plant. It is not a reproduction method at all and does not approximate it. As I understand it, it is figuring eight per cent interest including depreciation from the time it starts until *the* it closes at eight per cent.

Mr. BRENNAN: And including losses at eight per cent.

The MASTER: Yes, sir. In other words, it gives them a new capital every year and they get eight per cent on that original investment exclusive of depreciation; that is what it amounts to. It amounts to giving them eight per cent compound interest upon the original capital and keeping that capital whole from start to finish.

The WITNESS: You are right, with the addition that the capital so increased is reduced by the surplus profits over and above eight per cent.

The MASTER: I am talking about the net.

Mr. BYERS: You can see how important it is to have every memorandum the witness used.

Mr. BRENNAN: We want to serve notice that we shall not excuse this witness until we are furnished a copy of that balance sheet.

The MASTER: Yes, under his theory that is pretty important.

1911 Mr. READ: I thought the matter was closed some time ago; if it can be found, we will produce it.

Q. Now, Mr. Hagenah, then the item to which I have called your attention \$308,983 you say is the cost of the plant at that date plus the working capital?

A. Yes, sir.

Q. Why were you so careful to correct me when I was using the word value of the plant and say it represented cost?

A. Value and cost are two entirely different things.

Q. Then why in this table do you use the word value in lieu of cost; you say, value of plant at the beginning of the year?

A. That may probably not be the very best word for the beginning of the account; I never thought of it in that particular sense.

The MASTER: You mean book value?

A. Yes, the proper figure there is really cost. The word value is used as determined from the ledger entry.

Q. Was there anything out of the way with my designation of the value of the property at that date plus working capital?

A. Using the word value alone is not exactly right; if you had said book value, it would have been correct.

Q. Did you use book value in this report?

A. I did not put that head in; it would have been correct to put it in.

Q. Let me ask you this: Is the amount, namely, \$295,383 is that the book value of this plant at that time as shown by the books of the company?

A. It is not.

Q. Then what is it?

A. That is the cost of the plant at that time.

Q. I said book value of this property at that time?

1912 A. It is not; it is the cost of the property at that time. I have eliminated the elements—

The MASTER: He says book value all the time.

A. He is asking if it is book value; it is not. It is the cost; the book value was more than I have here.

Q. Let us see; It is not the book value of the property then plus working capital, or \$308,983.

A. No, sir, it is the cost of the plant, plus working capital.

Q. The actual construction cost of the property, plus working capital as shown by the company's books?

A. Yes, sir.

Q. Then you must substitute in that column there, instead of heading it value of the plant beginning of the year, you should say the cost of the plant at the beginning of the year.

A. Yes, that would be more nearly correct. The heading for the table is not technically correct. It is book cost plus working capital.

Q. Now, let us go to the next item, eight per cent on value of plant to-wit, \$24,719, just how do you figure eight per cent interest; upon the \$308,983?

A. Yes, sir.

Q. So that you are charging eight per cent interest on the book cost of the property and eight per cent interest on the working capital?

A. Yes, sir.

Q. That is your theory?

A. Yes, sir.

Q. There is no question about that now?

A. Yes, sir; using the word value in the sense I have just explained.

Q. You carry that same theory all the way through, do you?

1913 A. Yes, sir.

Q. Down to and including the year 1910?

A. Yes, sir.

Q. Now, in the next column, additions to plant including working capital, now does that mean the book cost of the additions to the plant?

A. It does.

Q. Plus working capital?

A. Yes, sir.

Q. Now, how do you arrive at the amount of working capital which is contained in that item?

A. I explain that in this manner: I analyzed and had assistants in the analysis of the current assets and liability items for all the years from 1887 to 1910. To take the working capital entirely from the balance sheet is open to criticism, as I explained yesterday, because the balance sheet at a particular date may not be typical of the company's condition through the year. The stock account may be abnormally low at that time; the cash account or balance may be very low or high. The amount of bills and accounts receivable and payable may be entirely abnormal, either too high or too low, and for that reason the balance sheet taken at any one particular date only shows the condition of the plant on that one date and is not necessarily typical of the company's condition throughout the year. In making this analysis for this series of years I found that the working capital some years increased substantially and some years very little; there were instances when there were actual decreases; whenever there was a decrease, the year or two following showed a very large increase.

Because of these elements being variable and fluctuating with 1914 the condition of the company in its operation. In order to take the individual items of increase and decrease of the working capital for each year, which would only complicate the table and not change the result materially, I took the average increase in working capital from year to year, which would bring me at the end of my table in 1910 to the amount of working capital as shown by their balance sheet and my analysis at the close of 1910. I then added this average increase of working capital to the actual increase in the cost of the property, that is additions to the plant during the year, and that average increase in the working capital added each year to the additions to the physical property amounted, as I recall it, to \$5,000.

Q. Now, Mr. Hagenah, I want to take up, at the beginning of this first row of figures additions to the plant including working capital which you say is the book cost and you had the record to show what these additions were. You say you examined them and you were able then, were you not, to tell from the balance sheet of that year about how much was necessary as working capital from year to year, you had everything there?

A. I could determine that.

Q. That is what I want you to tell us. How much of that \$1,894. represents the book cost of additions to the plant and how much represents working capital?

A. I will explain the statement that in one table of working capital the depreciation is at the rate of two and three-fourths per cent at which the working capital is computed at an average increase of \$5,500. In another table where the depreciation is computed at two and a half per cent it is \$5,000; which table do you have there?

1915 Mr. BYERS: I have the table here which provides for depreciation at two and a half per cent.

Q. It is \$18,394. on two and a half per cent?

A. Now if you will refer to schedule 1, Exhibit B, of my report you will find the cost of the additions to physical property in 1887 is shown in the last column on that page and is \$13,393.52. Now if you will add to that which represents the cost of the additions to the physical plant the average increase in working capital over this period of years it will give you \$18,393.52 throughout this table.

Q. I am speaking now of the working capital that was actually used that year?

A. I have not used an actual working capital that year. I explained that by saying that I used an average increase over 23 years.

Q. So you took the working capital, that is you averaged it up and spread it over the 23 years?

A. Yes, sir.

Q. And then you added to the book cost of construction—and then it is your theory that on that increase, that the stockholder in addition to earning eight per cent on the actual book cost of the property, he is entitled to earn eight per cent on this working capital as well?

A. I think he is entitled to his return on the working capital investment as well as the physical property.

Q. Notwithstanding that, in order to evolve this method, you are required now to go back and strike an average over a series of years?

A. Yes, sir.

Q. And that is true with respect to your depreciation account.

In other words you found no record that the company had charged off anything for depreciation?

A. I did find they had.

Q. Except the year 1910, is that true?

A. No, sir.

Q. When did they first open an account for depreciation?

A. They had no permanent account on their books for depreciation. They made a charge to profit and loss and credited the construction account amounting to, as I recall, \$264,000.

Q. I have that in mind: I want to know how if prior to that item you found any record or account kept by this company to represent depreciation?

A. I don't recall any.

Q. Would you have thought there was one?

A. I would always look for one; I didn't find any in this case.

Q. You didn't find one, and none had been kept and you took it upon yourself to substitute something which the company did not carry in connection with their business?

A. In order to arrive at this fair value I had to compute in so far as I could with the material at my disposal, what I felt was a fair rate for depreciation, there having been no charge for it, so I added that amount.

Q. I say you went back to 1887 and averaged it up and fixed up their depreciation account that would coincide with this theory?

A. Not necessarily coincide with the theory.

Q. The company had nothing as far as you could see?

A. No, sir.

Q. Do you know what the company may have done in that respect prior to 1887?

A. No, sir.

Q. Would that be important to know?

1917 A. It would be interesting and would have some element of importance. But not of material important; I can see where it might have some bearing, but not very materially.

Q. Why not?

A. Because the plant at that time was very small.

Q. How long had it been in operation?

A. I don't know.

Q. Did you take the trouble to find out?

A. I don't know how many years the company was operating prior to 1886.

Q. I notice in your report to the sub-committee of the council of the city of Chicago you were very solicitous to set forth an historical page in your report?

A. I did.

Q. You regarded it as important in that inquiry, did you not?

A. Yes, sir.

Q. But in this case you think it is not important?

A. I treated the historical question in Chicago in an entirely different way; the situation is not analogous at all.

Q. If this company had been in existence, say 20 years prior to the time you start in this report, and you had no records as to how the depreciation had been taken care of, would you assume that none had been carried?

A. I wouldn't assume anything if I had no records. I began my analysis with the earliest records of the company, furnished me in response to my request, and that shows the plant value as shown by my analysis, the plant cost of the books \$295,283.

Q. In order to get at this plant value and in order to average a reasonable amount for depreciation suppose you wanted to find what that would be, say in 1910, what it should have been, or in 1918 1909, how many years would you have to go back in order to verify your theory and to find out what the rate should be?

A. I wouldn't have to go back very far to find what the rate for depreciation should be; that has very little to do with the present age of the plant.

Q. The amount you allowed for that purpose, that is, independent of the present age?

A. The rate is calculated to reproduce the plant as today and the rate is applied on the cost new of the property.

Q. You were not concerned in the years 1887 up to 1906, were you?

A. For the purpose of this table I was very much.

Q. Why?

A. It was necessary to compile this table.

Q. Why was it necessary in order to compile this table you should go back to 1887, for instance?

A. I don't see how I could find out the earnings and operating expenses and costs for the early years without going back to those years.

Q. That forms an important part in the making of this table then?

A. Certainly.

Q. If you had valuable information prior to 1887, it would be equally as important that you had that information?

A. Certainly; if I had information for the earlier years I would have used it. I asked for it and I found the books were not available. But it diminishes as you go back, because the plant is always growing smaller each year.

Q. You start out with an arbitrary figure showing the plant value at \$308,983.

A. No, sir; that is a book figure; there is nothing arbitrary about that.

1919 Q. Now, we get up to eight per cent, additions to the plant, including working capital for six months, and that amounts to \$736 I believe?

A. I have not the same table you have. I haven't a copy of that exhibit here. (Witness refers to table.) Yes, \$736.

Q. Now that would be four per cent on the \$18,394, representing the book value of the additions to the plant including working capital.

A. Yes, for the period of six months- as opposed to a year.

Q. The interest on additions to the working capital, that is still carried into the other account on which the stockholder is entitled to a return on the investment?

A. Yes, sir; he is entitled to a return on the investment at the moment it is made.

Q. The next item, operating expenses, \$51,753. Now can you analyze that item and tell us how you arrived at that amount?

A. That is taken from the company's ledger for that year.

Q. Can you tell the Master just what items are included as operating expenses for that year?

A. It includes charges under the general division of manufacture and distribution, commercial and general expenses; the manufacturing expenses include the cost of the boiler and generator fuel, oil, purifying material, labor at the works, and the maintenance, both labor and material items at the works. The distribution accounts include labor and the expense of superintending and operating the distribution system and the expense of material incurred and consumed in such operation and both the labor and material expense in maintaining the distribution system, constituting the mains, services and meters, and the commercial expense such as salaries,

1920 demonstrators, solicitors, advertisements and would generally include meter readers, the delivery of bills and would verge closely in with the general expenses of the operating salaries in the office, except that the company then was small and I doubt whether they had a general office. That would also include salaries of general officers and expenses of rent, insurance and taxes.

Q. Did you endeavor to check each of those items of the detailed information which went to make up the operating expenses?

A. Those items appear in the closing entries of a journal and the ledger for the different accounts.

Q. Upon that you say the stockholder is also entitled to earn eight per cent and that is added to these other figures?

A. It is, in the theory of the preparation of this table; as an abstract proposition that would not be so.

Q. But you did for the purpose of this table, in arriving — what you term the value of the investment, you do have the stockholder earning eight per cent per annum upon \$51,753. representing operating expenses?

A. There is no column in this table to show eight per cent on the operating expenses; I just added the operating expenses; not eight per cent on the operating expenses.

Q. Now, then depreciation at two per cent on depreciable property \$5,997. that is arrived at in what way?

A. By taking a rate of two per cent on the depreciable property included in the cost of the plant; that is, the items embraced in the first column.

Q. This \$5,997. what did you do with that?

A. I considered that operating expenses.

Q. Is that carried into the same total?

A. It is carried into the table that appears in the next column.

1921 Q. This total of \$410,582.

A. Yes, sir.

Q. Now then that \$410,582, represents the book value?

A. Book cost.

Q. All right, book cost. At the end of the year of June 30, 1887, plus working capital, \$24,719, eight per cent on the value of the plant including working capital, is that right?

A. Using value as I have explained it in connection with this table.

Q. You used value in Exhibit 26?

A. The word value is there but the title is not technically correct.

Q. And plus \$18,394, representing the book cost or additions to working capital, and plus eight per cent interest on the book cost additions to plant including working capital for six months, and plus operating expenses, plus \$5,997 for depreciation, you have a total of \$410,582.

A. Yes, sir.

Q. From which now you deduct the gross earnings and then you say that the book cost of the plant at the close of the year was \$331,789.

A. No, it was not the book cost now. It now becomes the investment value of the plant at the end of that year.

Q. What is the distinction or difference, if any, between the book value of the plant at that time and the value of the investment; I wish you would make that clear.

A. The book value contained elements which I did not think were proper amounts to be included in arriving at the book cost of

the property. The book cost was considerably lower than the book value. I had used book cost. That amount represents actual cash expenditure by the company for the property devoted to the public use in the gas utility. The value of the investment now 1922 under the theory of this table means that the amount \$331,789, which is larger than \$308,983, at the beginning of the year, includes the book cost of the physical property the working capital and the element representing the losses which the company has sustained on the operations of that year by reason of its failure to earn eight per cent in the operation of its business.

Q. So that you would add to the items which I have included in the general question, where we get the total of \$410,582, the losses?

A. The loss is not determined until you consider the earnings of the business.

Q. You deduct the gross earnings?

A. Yes, sir.

Q. And then if the company has fallen below eight per cent that you capitalize and add that in and that is the value of your investment?

A. Yes, sir.

Q. Then you take that along the same way year after year and follow it out along the same way?

A. Yes, sir; wherever the company fails to earn eight per cent, the amount by which it fails I consider an addition to the cost; the amount by which it earns over eight per cent I use to wipe out earlier losses the investment has sustained.

Q. Did you prepare a table on a six per cent basis?

A. I did not.

Q. If you had made one and used six per cent instead of eight it would have made considerable difference in the computation?

A. Yes, sir.

Q. If you had used ten per cent you would have gotten considerable of an increase?

1923 A. A very much larger figure.

The MASTER: The total gain in what you term the value of the plant or investment value of the plant as I figure it during the 24 years is \$1,080,125?

A. That depends upon the table you are using.

The MASTER: I was wondering whether one-fourth of that gain would represent the difference between that and six per cent.

A. I don't know that.

The MASTER: I don't either.

Mr. BYERS: What exhibit did your honor read the figures from?

The MASTER: I used the figures, his book value without any interest is \$1,928,000, added to it \$108,000 gives you \$2,056,016. That subtracted from the total gives you the gain. I just wondered if one-fourth represented the difference between that and six per cent compound interest to date.

Q. Will you refer to exhibit 36 that you have had there?

A. Yes, sir.

Q. Now we take up the operating expenses without depreciation; I see for 12 month- ended December 31, 1910, the cost of producing gas at the burner is .6647; is that right?

A. Yes.

Q. Now, have you gone over these operating expenses pretty thoroughly for that year and the four years preceding?

A. Yes, sir; I went over them for 1910 myself; and for the few years preceding my assistants went over them and I checked their analysis.

Q. You know what it has cost the company in fact for operating expenses, from an analysis of the books?

A. Yes, sir; I have seen all the vouchers charged during that year.

1924 Q. I notice in the year 1909, the next year just preceding, the cost of manufacturing gas and delivering it to the burner was .6256?

A. Yes, sir.

Q. For ten month- which is computed on the unit basis?

A. Yes, which would not make any difference.

Q. If we take the 12 month- ended December 31, 1910, and deduct from the operating expenses the \$10,000 that I believe you said was charged to operating expense and was paid to the United Gas Improvement Company—

A. Paid to certain officials of the United Gas Improvement Company who were officials of this company.

Q. Suppose we take that item from the operating expenses, and suppose we deduct also, I think it was \$5,600, that was charged to operating expenses, representing litigation, and then we deduct \$2,000 from operating expenses for donations to the Greater Des Moines Committee, and we have then \$17,600 to be deducted from the operating expenses for that year; and I wish you would tell us, making these deductions, what difference it would make in the cost of manufacture and delivery of gas to the burner and the people?

A. I have not the figures here, but it would make quite a reduction in the unit cost.

Q. Couldn't you approximate it or just figure it out for me?

A. Give me the amounts you want deducted.

Q. The first item is \$10,000, Engineers U. G. I. The next item is \$5,600 representing litigation; and the next \$2,000, representing donations, being a total of \$17,600.

A. I got it 63.1 cents per annum; I haven't checked it back.

The MASTER: Is that the year 1910?

1925 A. Yes.

The MASTER: That reduces it from 66.4.

A. Yes, to 63.1.

Q. Now, Mr. Hagenah, I want you to take up with me Exhibit 27. I want to understand that a little more fully. It is the schedule comparing capital expenditures as per the books with the average of engineer's present value. Now expenditures as per books the first

item under the title of real estate I see that is left in blank, and the next column expenditure as per books, redistributed \$54,815.26; now how is that redistributed?

A. I will have to go back and refer again to my report to the company. In that case I combined land and buildings under the general head of extensions and improvements. I did that for simplicity and merely for convenience so that I could get all the detailed items on one page of paper. For the purpose of comparing this analysis with the engineer's figures who had a similar detailed classification I had to separate land and buildings from extensions and improvements. I also found this one item \$285,000 charged as a single item and covering several classes of property including some land and a holder and some mains and an oil storage tank. No value was placed upon these different items other than the inference that they were all covered by the single charge of \$285,000. In order to make my figure so that I could compare them with the engineer's I had to distribute that \$285,000 over the different classes so that what I thought was a fair amount for the holder would go into the extension improvements alone and would appear separate and I would charge a certain amount to the distribution system and dispose of the oil tanks. That is a matter of my own judgment. I did not change the total.

1926 Q. The \$285,000 you undertook to distribute, you had some detailed information with respect to it?

A. Only from general information, no written information, because there is no analysis of the company's books as to the value of those different items.

Q. Is it possible for you to produce an itemized statement of the items or a statement of the items showing this \$825,000?

A. I could not produce a statement. I do not recall that it includes any other items than those I mention—some land and some distribution of the mains in the village of Valley Junction, a one million cubic foot holder and one hundred thousand gallon oil storage tank.

Q. Did you look up to see when that holder was constructed?

A. No, sir.

Q. Have you received any information on that?

A. I have talked about that; my recollection is it was constructed shortly preceding the consolidation of the Capital City Gas Company with the Valley Junction property, making the Des Moines Gas Company on March 1, 1906. I don't remember even whether it was in the course of construction at that time.

Q. As I understand it, it was one of the principal items entering into this \$285,000.

A. Yes, sir.

Q. I believe you attempted to explain it on the theory that it may have been constructed without having been duly authorized under requisition?

A. I am not trying to explain it; I can't see how that condition might have existed.

Q. Did you have any explicit information which suggested that thought to you in this case or was that your mere conclusion?

1927 A. A little more than a mere conclusion. In the journal entry covering the consolidation of this property March 1, 1906, there is a reference to this transaction and in my inquiry as to what the \$285,000 included, the information was given to me that it included this holder which was being constructed and did not appear on the books of the Capital City Gas Company, but since the consolidation was made at this time it was embraced in this one lump charge that included the several other items.

The MASTER: In other words, this \$285,000 represents work that was begun by the companies before the transfer to the Des Moines Gas Company but had not been entered upon their books yet because not completed?

A. It had not been completed; whether it was actually being constructed by the Capital City Gas Company I am not sure, but it certainly was constructed for their use; any way it had not appeared on their books but was a construction for their use.

The MASTER: That was your information?

A. Yes, sir.

The MASTER: You had no personal knowledge of it?

A. No, sir.

The MASTER: The books do not show it?

A. No, sir.

Q. That is merely your conjecture and your analysis of the situation?

A. Based entirely upon the information I got.

Q. Do you know what real estate was included in the \$285,000?

A. I was told, but I do not remember. I was given a description of it in the terms of lot numbers in Scott and Dean's Addition, Fort Des Moines.

1928 Q. Real estate situated within the corporate limits of the city of Des Moines, or was it situated in Valley Junction?

A. I am not familiar with the city, whether Scott & Dean's Addition is in Des Moines or not.

Q. If it was in Scott & Dean's Addition it is in the city of Des Moines.

A. Then it was in the city of Des Moines.

Q. Do you know how much was included in that amount for property in Valley Junction?

A. No, sir; there was no expression to show the cost or any of the value of those items. It was just one charge covering the several items and class of property.

Q. Well, going now to the item of \$54,815.86, that is the amount of real estate as distributed?

A. By me solely as a matter of my own judgment.

Q. I want to ask you, how much did the books show had been paid for real estate?

A. I don't recall the figures. I did examine them; there were purchases back as far as 15 or 18 years ago, for which the company did not pay a very large amount; I recall I considered it a very small amount at that time. There was one charge for real estate to the amount of \$25,000.

Q. It was important, was it not, in distributing it?

A. Yes, it was important.

Q. To know what the company had actually paid for real estate?

A. Yes, and in arriving at this \$54,000 I went back and recalled those specific items and inquired about them. This table you understand was completed after I came to Des Moines and from that information shown on the books placed a general value for a particular part of this \$285,000 and I placed it at \$54,815. I had no 1929 record information on that point. It is merely my own judgment.

Q. Do you have much confidence in this Exhibit 27 as to the results?

A. Yes, I have every confidence in it, because if I had been wrong in placing the amount here of real estate by several thousand dollars, placed it too high or too low, the correction appears in one or the other; it cannot be very material; I have not changed the total; it is merely a question of distribution of certain classes of property. It would affect the last column in this table in this way: if I had entered \$50,000 as the value of real estate instead of \$54,000 there would be a difference in the item of \$188,000 by \$4,000; then if I had stated it lower by \$4,000 I would not have had to charge it to the other; the total is not in any way affected.

Q. Have you any memorandum or data from which you made up this distribution?

A. No, sir; I have not. The first column is based upon my report and the second is based upon the first with my distribution of the \$285,000.

Q. You have no memoranda of that detailed information?

A. I simply make the deduction for you now if you wish, just deducting the first column from the second.

Q. In making up this table, Exhibit 27, did you make it up without having a memorandum?

A. No, it was based upon the three engineers' reports and the books—

Q. I understand you; the expenditures as per books redistributed, that is the item I inquire about?

A. I have no data on that that.

Q. Where did you have the data?

1930 A. I can work that out in about ten minutes.

Q. Very well, do it.

A. (Witness computes.) All I do is just deduct the first column from the second in my report schedule 1, Exhibit B, the item \$285,000 which represents the general charge covering several classes of property but not separated by the company, is included in the first column under extensions and improvements for the year 1907. Therefore to make a distribution of that item I would have to deduct from the total extensions and improvements at the close of 1910, which amounts to \$806,380.46 and appears as such in the first column of Exhibit 27, and would have to deduct such amount as in my judgment it is not proper to include under extensions and improvements. I said this general charge to the best of my knowledge cov-

ered land, one million foot holder, one hundred thousand gallon oil storage tank and certain distribution property in Valley Junction, as to the amount I have no knowledge. For the purpose of this table I distributed by deducting from the \$806,380.46 the amount of \$155,000.

Q. Where did you get that?

A. That represents my judgment as to the value of the property not to be charged to extensions and improvements.

Q. How did you get at that \$155,000—what is your detailed information on that?

A. I am not through with my answer.

Q. I beg your pardon.

A. That \$155,000 must then represent the investment or cost of the property transferred representing mains, meters and services. I distributed that amount also according to my own judgment and put \$105,000 as addition to street mains; \$25,000 as an addition to the meters account; and \$25,000 as an addition to the services account. After deducting this \$155,000 from \$806,380.46 I had a remainder representing in my judgment the extensions and improvements to the amount of \$651,380.46 which includes a certain amount of real estate, and I have separated that as shown in the second column into the two items of real estate \$54,815.26 and \$596,565.20 the totals balance.

Q. So that it all gets back to the question of judgment?

A. It is judgment as to the distribution of the \$285,000.

Q. And the reliability of your information?

A. Yes, the amount which I left in the extension and improvement account, amounts to \$130,000 and would cover the value of the million foot holder and the real estate. I have no engineering experience and knowledge and do not know what the million foot holder is worth other than what the engineer's reports contain and I did not consult those.

Q. Did they help to make this table?

A. No, I talked with Mr. Randolph as to what he thought was the fair value of such a holder. He did not tell me as I recall it what he put that item in his report at. I did not know from him what his appraisal was; as I recall he said it would range from about a hundred thousand to \$110,000.

Q. What I wanted to ask you is this, Mr. Hagenah, that the figures which you have used and the information upon which you relied in assuming those figures, forms the foundation for your whole structure?

A. Not at all; it is merely a question of the correctness from an engineer's standpoint of the distribution of \$285,000 of which I know several items, but had no accurate knowledge as to the value.

Q. But the \$285,000 is assumed by you to be correct?

A. I have no assumption; it is figured on the books.

Q. It is assumed by you to be the amount actually expended and properly charged?

A. Yes, sir.

Q. Did you see any vouchers for it?

A. No.

Q. Then you must have assumed it was correct?

A. Yes, it is property taken up in the consolidation.

Q. If it should turn out that your assumption was erroneous, would that make any difference?

A. If my assumption is erroneous as to that, it would make a difference in the amount in which my assumption was erroneous.

Q. And it would also make a difference in making up your judgment as to the amount to distribute from these other items, if the information turned out to have been a mistake?

A. To the extent of your assumption it would affect it, yes.

Q. In other words, the judgment which you express in these figures is predicated upon the information which you received either from the books or the verbal statements made to you by others?

A. The verbal statements and information as to the manner of the transfer and the existence of the property, as to the physical existence of the property; there is a million foot holder there and a 100,000 gallon oil tank.

The MASTER: Mr. Randolph puts it at \$135,600 without any deduction?

A. I have not seen Mr. Randolph's figures.

Q. What figure did you use representing that item of holder?

A. \$130,000.

1933 Q. This \$130,000 which you assume was the price for the holder, did that include the storage tank as well?

A. Yes, it would in my assumption.

Q. Now, the next item is extensions and improvements. I understand you take \$806,380.46 that is taken from this same column in schedule 1 Exhibit B?

A. Yes, sir.

Q. Now you decrease in the next column that amount to \$596,565.20 and by what method do you arrive at that amount in your distribution?

A. That amount is reduced because I have taken out of it the allowance for real estate, and what I thought was a fair proportion for mains, services and meters.

Q. Do you know how much you took out for real estate?

A. No, I do not recall.

Q. Have you any detailed information?

A. Not with me, no sir.

Q. Have you at the hotel?

A. No, this material here of the real estate item is made up of my recollection of the charges on the ledger for the different items, that is land, not real estate, of which one charge was \$25,000 and others of a very much smaller amount, \$500 amounts of that general size; I don't remember all of them, and I added to that a certain value for a certain part of this \$285,000 which I was told included some real estate, in what I described as land in Scott & Dean's Addition.

Q. Then again, you relied upon the verbal statements of others as to the real estate?

A. Yes, sir.

Q. And as to the other items, as to the existence of those items?

1934 A. Yes, sir; I have not visited the plant with the particular idea of visiting those one *are* two parcels of land and I could not identify them without a survey and record.

Q. This table, Exhibit 27, represents your individual efforts based upon the books company and information furnished you by officers or employes of the company, or the engineers who have testified on behalf of the complainant company in this case?

A. In part, and only to the extent that I consulted them as to the proper distribution as to this general charge of \$285,000. The other parts are matters in this case and I did not change any figures on that.

Q. Take for instance your judgment as to how much you would eliminate from the \$806,380.46 representing the expenditures on the books for extensions and improvements, you deducted therefrom the amount of \$203,815.26 and then you proceeded to take that amount and distribute it over the other items?

A. I did not deduct as much as you say. The deduction which I did make is not the figure you gave, but \$155,000.

Q. You gave \$806,380.46 that is the expenditure for extensions and improvements as shown by the books?

A. Yes, sir.

Q. The expenditures by the books redistributed, \$596,565.20 so that you had \$203,815.26 to place somewhere else, did you not?

A. Yes, part of that branches into real estate which is the new account appearing in the second column; the amount which I had really taken out of the \$806,380.46 is \$155,000.

Q. My question was that you had that amount which you distributed?

A. Yes.

Q. Now, as to meters, in the first column I find the amount 1935 to be \$187,755.93.

A. Yes, sir.

Q. And you have increased in the next column the amount to \$212,755.93 increasing it about \$25,000; is that \$25,000 a part of this \$203,815.26?

A. Yes, sir.

Q. What was the basis of your judgment in arriving at that conclusion?

A. Just conversations with officials and people acquainted better with the property than I was.

Q. That is true of your entire exhibit here, number 27, as far as distributing this \$285,000 is concerned.

A. Just only to that item; where there is no record information; I know the general property which was transferred and I used my judgment as to the amounts. You see I used round numbers; it does not affect the final result.

Q. You did not have to rely upon the information furnished by others in respect to the cost of the real estate?

A. No, sir; that price is on the books.

Q. Except the last that was purchased in Scott & Dean's Addition?

A. Yes, sir; there being one item in that \$285,000.

Q. Now, Mr. Hagenah, taking these several exhibits which you have produced here to illustrate your theory of the value of the investment, I wish you would tell us, if you will, just what the actual structural cost of this plant is as shown by the books without any reference to your analysis for figures?

A. According to schedule 1, Exhibit B, of my report \$1,928,-016.65.

Q. Did you take from that the \$264,000 which they charged off?

A. Yes, sir.

Q. Where does that appear?

A. That does not appear here, because it is not a charge; 1936 that was a credit.

Q. Where is it shown in your report that you have given any credit for that?

A. If you will return to schedule 1, Exhibit A, you will find the amount in the upper half of that schedule.

Q. Is your report pagged?

A. I think it is on page four.

Q. That is taken out on your total here of the value of the investment. What I want to know is, did you take it out and deduct it from this \$1,928,000 in round numbers?

A. No, I have not.

Q. If you did that, would it make any difference?

A. Of course, if you subtract an amount from a given figure it will reduce the figure by that amount.

Q. I mean it would affect the general results, would it not?

A. It will disturb the entire table if you do it that way; that is not the correct way.

Q. Is there any reason why that amount should not be deducted from the physical cost of this property where you find there has been a charge of depreciation to this amount?

A. That gives you the present condition, which is not what my table shows; my table shows the cost of the property. I have not made any change for appreciation or depreciation.

Q. I was asking you to tell the Master just what the actual book cost of this physical property was?

A. Which I did.

Q. That is, \$1,928,000; in that sum can you find the company charged off the \$264,000 in round numbers?

A. From the book value?

Q. Whether it is book value or book cost, that is the 1937 amount in actual figures.

A. Yes.

Q. And that represents the company's theory of depreciation, does it not?

A. Yes, to the best of their financial condition.

Q. And you have substituted your notion of it?

A. Yes, sir; that is, substituted my notion in arriving at what I consider the present basis for rates; I have not altered the books in any way.

Q. I understand that you have not gone and made erasures and entries in the books. But you have worked out a plan here that is distinctly different from the method employed by the company?

A. Yes, sir; I have taken a radically different method.

Q. Do you know when the public utilities first commenced to show a depreciation account in connection with their business?

A. As a general historical proposition?

Q. As a general rule?

A. Yes, very little has been done with the scientific analysis of depreciation until the public service commissions came into use, notably the New York Commissions and Wisconsin Commission.

Q. Was that the genesis of it, or was it at the time the famous case of the Knoxville Water Company against the City of Knoxville?

A. As I recall it, I was working on our classification of accounts before the Knoxville decision was rendered. I attended several conferences and was a member — classification and uniform accounting committees where we were struggling with that classification before the Knoxville case.

1938 Q. You were proceeding no doubt upon the theory as you proceeded in this case, that it was proper, inasmuch as the companies had overlooked something to their advantage, and which was right to have carried along, that you would have the right to distribute that over the series of years in which the plant had been in operation?

A. No, not at all as you put your question.

Q. Suffice it to say, prior to 1909 this company had never charged anything off for depreciation as far as the books are concerned?

A. They handled it different before the companies understood the uniform handling of these accounts.

Q. I am not going to dispute your right to claim the honor of this method over the Supreme Court of the United States. It is sufficient to say, since that decision there has been some effort on the part of accountants and public utilities to take care of this depreciation account; that is true?

A. No; accountants have been struggling with this problem ever since the science of accounts sprang into use. It was not until the time of the Knoxville case you refer to until the companies actually awakened to the fact.

Q. Some very astute accountants in that case had endeavored to spread the depreciation over the life of the plant and the Supreme Court held that was improper, that the consumer was not to be required to pay for their mismanagement?

A. I haven't a copy of that 212 U. S. page 1 with me. I presume it is so stated there.

Q. The effect of your theory and the result of it is to do that very thing; isn't that the sum total of what you want to do?

A. I cannot answer your question yes or no, other than to say

that in the absence of providing for depreciation in the manner it is now cared for and as it has been discussed in the recent court decision, it has not the slightest—

Q. Let me ask you this question, Mr. Hagenah: Assuming for the purpose of the question that you must eliminate all question as to the depreciation prior to the year 1909, when this company undertook to carry a depreciation account; that you must eliminate that from your theory and start out on the basis of depreciation from 1909, would that make any considerable difference in your computation and the value of your investment?

A. Yes; the answer would be wrong because it would be founded upon the wrong assumption which you include in your question.

Q. Then if the assumption is wrong, included in my question, in order for you to demonstrate your theory, you must charge depreciation over these years, going back to 1887 and as far back as you have any history of the plant?

A. Yes. Don't you see when you do that and use present value of the plant that you are penalizing the investor by using the present value of the plant instead of the cost new; referring to the court decisions we use the present value of the property.

Q. I am not going to discuss the law with you on that point, I just simply wanted to know if you abandoned the depreciation account and eliminated it prior to 1909, it would make considerable difference with your figures?

A. Of course if you eliminate it altogether it makes that much difference.

The MASTER: Mr. Brennan, it strikes me if that depreciation account is kept up to its present value altogether, there is no necessity of figuring it at all.

Mr. BRENNAN: In order to demonstrate this theory, he must come in and show us in what manner the company kept its books.
1940 When I ask him the question what he finds upon the books and if that represents so and so, he says yes, together with my analysis of the figures.

The MASTER: So far as his theory is concerned that is another proposition. There is no necessity of figuring depreciation at all, because there is no depreciation where it is kept up; there can't be any. But to my mind the only thing I think to consider is to know what the depreciated value of the plant was at the time he begins to figure in 1887, because he figures depreciation.

The WITNESS: I can only say if any confusion exists in re- to that, it is due entirely to the manner in which the questions have been put to me. If it is desired, I would be very glad to explain it at length.

At this time an adjournment was taken until 1:30 p. m.

1941

1:30 P. M., WEDNESDAY, *August 9, 1911.*

Mr. GUERNSEY: If there is no objection we would like to interrupt the cross-examination of Mr. Hagenah by putting on two witnesses who live out of the city and want to get away tonight.

Mr. BYERS: No objection.

ANDREW COOKE, being called on the part of the complainants and sworn and examined in chief by N. T. Guernsey, Esq., testified as follows:

Q. Your name is Andrew Cooke?

A. Yes, sir.

Q. Where do you reside?

A. Chicago.

Q. What is your business?

A. Vice President of the Harris Trust & Savings Bank.

Q. How long has that bank been in existence, who did it succeed?

A. It was formerly the Chicago office of N. W. Harris & Co., which was organized in 1882 and the bank was incorporated in 1907. Affiliated concerns are still in New York and Boston.

Q. What department of the business are you in?

A. I give my attention primarily to what we call the corporation business.

Q. And what is that business?

A. That is the business—it is the purchase and investigation of public service properties and public service bonds and properties, gas, electric light, water works, street railway and railroad.

Q. In a general way can you give us the volume of the 1942 bond business transacted by the Harris Trust & Savings Bank and the affiliated firms in Boston and New York.

A. The last full year I think it ran about 150 millions of bonds that were purchased and sold direct to investors and running beyond that now considerably, I don't remember now just what the figures are.

COURT: You mean 150 million a year?

A. Yes, sir; 150 million a year of all kinds of bonds. We have handled more than a billion, I don't know how many. I think we are the largest distributors of bonds direct to investors in the United States.

Q. How broad is the territory in which the Harris Trust & Savings Bank and firm of N. W. Harris & Co., preceding it has bought and sold these bonds of public service corporation?

A. We cover the entire United States and Canada, buy issues in all—practically all of the states and in Canada.

Q. How long have you personally been connected with this business?

A. 12 years. I first traveled for a couple of years practically over the entire country buying municipal bonds and the last ten years I have been engaged on the corporation end of it, examining

the properties and accounts passing on the securities, reorganization and that sort of thing.

Q. What is the fact as to whether you are the head of this department of the Harris Trust & Savings Bank?

A. Subject to Mr. Harris and the directors of course, that sort of thing is in my charge.

Q. Now to what extent does the purchase and sale of these securities bring you in touch with the operation and with the extensions and general affairs of these corporations which issue these bonds?

1943 A. Well to a very large extent. I presume that in an advisory way I consult with these various companies on practically every phase of their business as the purchase by us of corporation bonds does not cease from the time they are taken up until the bond is sold, we follow the securities clear through until the time they are paid off and if not paid off have to go in and reorganize the property.

Q. Then the fact you buy an issue of bonds and then sell them you do not drop the matter?

A. No, we would like to oftentimes but we cannot as a rule. We follow them through to see that the management of the property is all it ought to be and our trust deeds are drawn in such a way that the property has to be handled properly and we find that our mortgages are usually drawn in such a way that bonds may be issued for extensions and additions and all that sort of thing so we have various funds we have to check vouchers and all that sort of thing and have construction work to pass upon by our engineers and accountants and in a general way we are in touch with practically every phase of the business.

Q. You have to do this on account of your obligations to the persons who purchase from you?

A. On account of that and on account of the fact we are continuing to buy additional securities from time to time so that we keep in touch with them.

Q. What is the fact as to whether these corporations while you are handling their bonds make periodical reports to you of their business and things like that?

A. They report in detail every month and we have accounts examination and engineers' reports from time to time in addition to sending our own men out.

1944 Q. Do you send your own men to inspect the properties and look over the extension?

A. Yes; we have people traveling all the time doing examining and that sort of thing, pass upon the advisability of expenditures and make up our mind as to what the proper return would be.

Q. We have read a good deal in the papers about the reorganization of the street railway properties in Chicago. Did you have anything to do with that?

A. Why our office were the financial people back of the union traction reorganization. I had more or less to do with that and the recent reorganization taking in the consolidated I was chairman of the re-

organization committee. That involved getting a new franchise as it does in a good many places and dealing with the city.

Q. Now Mr. Cooke, I wish you would explain to the Master where the money comes from to these public utilities and how it is obtained.

A. I don't know—if I don't make it clear as I want to do I wish you would question further. We keep in touch with the entire territory and try to keep familiar with the laws of the different states and in some of the states we do not care to invest our money whatever, owing to unfavorable laws, we simply check those off and then through the balance of the territory we are pretty well in touch with the larger cities, we do not feel that the smaller places—they are usually unsatisfactory from the standpoint of investment, the business is not there to warrant the investment and they do not earn enough so they can afford to have proper management so we

1945 usually confine ourselves *ourselves* to the larger places and we know what the gas plant in this place and the electric light and water power here and there are, and very frequently before a property is constructed it is brought into us by local people and they have an idea it is very easy to get money, that the bonds are selling at a certain rate, and they think they have a mighty fine investment, people will make money in their manufactory or something of that kind. They don't want to put up very much money, just have an idea if they get a franchise or right of way or something of that kind, that is about all they have to do. We usually tell them it is absolutely necessary for them to get in touch with some of the people who are owners and manage- of properties that public service business is their specialty and that no local people with no experience and with but a limited amount of money can successfully go into public service business in any good sized city. The result is that while we hear of these properties we do not have much if anything to do with them until they eventually find their way into the office of some concern like the United Gas Improvement Co., or Stone & Webster, the H. M. Byllesby & Co., people that are experts in that particular line not only in the management and construction of properties, but raising the money so that as a rule we buy the bulk of our securities from concerns who are what we call large producers of securities, people who understand their business and who carry properties along until such time as they are an assured success. They have to raise their money in various ways. They have primarily to put their own credit back of it and if we have property that is owned or controlled by one of the larger operating companies

we feel reasonably sure that the management will be what it
1946 ought to be and that they would not have their money in there if it was not a good proposition consequently properties handled that way usually the bonds for part of the costs, they take that additional risk of placing the money ahead of them. Then we buy those bonds outright and they eventually go to the investor, the investor has the bonds bought a long time before the small investor or bank or trust company put- the money in the securities and finally they have a going concern but they have put their money in a long while after the original investment has gone in.

Q. Do you know what rate of return upon the money invested in

these public utilities in this part of the country it is necessary to promise in order to attract capital to these investments?

A. I think I do, yes.

Q. Now I wish you would state to the Master whether this is a fixed factor or a variable factor and if it varies state what the considerations are which affect the amount of this return or affect what amount; this return must be in order to make it attractive.

A. Of course it must vary according to—each proposition stands by itself and I have always worked the thing out about this way that factors in determining what would be a return which people would want before putting their money into a proposition of this kind would consist of say six per cent first as a mere return on the money.

Mr. BYERS: I did not make any objection to the question because that does not call for any amount, but as the witness is stating amounts we object to it.

A. I will leave amounts out. The first factor to be considered would be return by way of interest for the money, for the use of the money. The next would be perhaps the risk or hazard 1947 which would have to be assumed and which would exist for various causes and over and above that there would be the profit or return which people would feel they ought to have to compensate them for their brains and experience and for time put in and for the credit which they would have to enable them to carry properties through successfully.

Q. What is the fact as to whether or not the expense incident to looking into the property, examining the property and caring for it and watching the investment is another factor that must be taken into account here.

A. It certainly has to be. You are there with the property from the time you invest in it and in addition to what I have mentioned there is the factor which is a very important one that you never can get away from and that is the liability it calls for to continue to invest more money in the property to take care of extensions and additions whether there happens to be a panic or whether money happens to be easy they have got that unlimited liability to pour in more money year after year, and have got to figure for every dollar increase in their gross earnings they have got to put in three or four or perhaps five dollars in additional investment.

Q. Why is this that additional investment is a requisite at any time especially in this part of the country?

A. The growth of the cities and no- of these properties stands still and that is one of the greatest problems which any of these public service companies have is the problem of raising money to take care of growth of the business which is due to the usual more or less rapid increase in population.

Q. Now take, Mr. Cooke, a situation such as we have here in Des Moines, you are more or less familiar with Des Moines personally? 1948

A. Yes, sir.

Q. You have been coming here more or less frequently for how long?

A. Oh practically ever since I have been with the house I have been here off and on.

Q. And at one time the N. W. Harris Company bought a small issue of the bonds of the gas company in Des Moines?

A. Prior to my connection with the house, yes. That issue was paid off, a very nominal amount on the plant and was paid off in 1906, some such time as that.

Q. Now take the situation in Des Moines here with a population of about 85,000, a growing city, a gas plant here, involving an investment which it would cost to reproduce it after you took the depreciation, reproduce the physical property with the business attached to it of say, \$3,100,000 to \$3,150,000 and assume there were no abnormal conditions in the laws or no unusual conditions in the laws of the state, what in your judgment would be such a return as to induce capital to invest in such an enterprise?

Objected to as incompetent, immaterial, no proper foundation having been laid for the inquiry, the witness is incompetent and the question is based upon an assumption that is not in the record.

A. I think that if I could answer it by saying assuming that the laws and the franchises situation was favorable furnishing adequate protection to the investor that at least ten per cent would be required to attract capital. That is ten per cent after allowing for all operating expenses the taxes, and full charges for maintenance and depreciation sufficient to keep the original property of the investment unimpaired.

Move to strike out the answer as voluntary and incompetent and immaterial.

1949 Q. In some of the states take Wisconsin as an illustration there have been some laws enacted making the matter of the regulation of rates and regulation of service and capitalization by the control of a central body being the board of railroad commissioners there and providing for franchises which continue so long as the public service corporation continues to perform its duty to the public and also providing for the exclusion of competing public utilities so long as the existing utility furnishes adequate service. What effect if any have these laws had on the return which would attract capital to the business or to put it in another way upon the attractiveness of the investment.

Objected to as incompetent and immaterial.

A. You mention Wisconsin, I think that is as good an example of the condition that you refer to as any. The control of public utilities by commission is still—the results of that are still more or less uncertain. I think that investors and people who purchase and operate public service companies are waiting to see what the attitude of the Wisconsin commission is going to be in reference to valuation and return upon investment which the commission will allow. I was asked that same question at a hearing before the Wisconsin com-

mission, the chairman of the commission, Mr. Myer now interstate commerce Commissioner, asked me the same question practically and I told him then I thought the people were going to wait awhile to see about what Wisconsin was going to do. I know certain interests where that is true where the people are waiting to see what the attitude of the commission is and I replied to Mr. Myer it depended somewhat upon whether the commission continued to stay out of politics or whether there was political influence brought upon it

which would result in the corporations being harrassed 1950 through the commission the same as they had been through the local city councils and said whether or not the investors were going to consider that the protection of such a law as a good thing and result in their being willing to invest money in Wisconsin at a lower rate than elsewhere where conditions were less favorable would depend upon what sort of a protection it was. If it was the sort of a protection that the fellow in the penitentiary gets, allowed to live on bread and water, he is there now and nobody can get in, nobody wants to and he can live along on bread and water if they are going to hold them down to that people who have got their money in the properties will have to keep it there, but you won't get any additional money to come in. These companies will hold back the investment of additional money assuming that the commission takes a fair view as it apparently wants to do, it seems to be reasonable and want to find out what is fair and reasonable as to the matter of investment in public service corporation- and to make them attractive that is a very much better situation than existed in Wisconsin prior to the passage of the law giving the Commission jurisdiction over these companies.

Q. Now in Iowa the law is now as I understand it that no city can grant a franchise to a gas company for more than twenty five years or can by any contract afford to the investor any assurance that at the end of the twenty five year period he will not be required to remove his plant from the streets. I wish you would state whether or not that would be a factor affecting the attractiveness of such an investment and how it would affect it in any sense and whether it would render it more or less attractive.

Objected to as incompetent and immaterial.

A. When I mentioned 10 per cent as the return which I 1951 thought would surely be demanded it was investment under favorable conditions. I regard what you mention as distinctly unfavorable and it would give an investment in Iowa a very speculative feature. I don't believe you could say you would want 15 or 29 per cent or any speculative return if you were going to invest in Iowa for the reason you probably would not be able to earn it. The result would be these conditions named the investor would do what we have done, keep out of the state of Iowa until the laws become more favorable.

Q. Now there is another thing that I understand is provided for by our statutes and that is that cities through their councils are vested with the power to regulate the rates which are to be charged by gas companies the law expressly prohibiting their making any

arrangement for a rate which covers any specific time. I wish you would state whether from the investment standpoint that would be regarded as something that was favorable or unfavorable.

Objected to as incompetent and immaterial.

A. I would consider it very unfavorable if the regulation particularly in view of the fact the regulation of rates is left with the local body.

Q. The law here as I understand it authorizes cities to themselves institute gas plants and to operate them and also expressly provides that no exclusive franchise to operate a gas plant shall be granted to any one or for any term. I wish you would state whether in your judgment that is a factor which would effect the desirability of the investment and if so in what direction?

A. I think it would very seriously interfere with the ability to secure capital for Iowa properties.

1952 Q. There is another provision in the laws here to the effect that cities may condemn and so acquire gas plants which are located in the cities. I wish you would state whether that would be a factor affecting the desirability of investment in gas properties in Iowa.

Same objection.

A. I would make the same answer, yes I think it would seriously affect it. The right to purchase in itself is not particularly objectionable if the right can be exercised at reasonable periods and a full allowance is made for going value and all that sort of thing so that the investor would know that under no circumstances could the plant be purchased at a price which would not see him out on the principal of the investment. I know that people want to keep their investment permanent but will sell it out for a good fair price for it but ordinarily condemnation proceedings instituted by a city do not usually result in that.

Q. Take the case of the gas plant in the city of Des Moines with the conditions here as you know them, with the laws providing that a franchise may not be granted for more than twenty five years, that no exclusive franchise can be granted, that the city may at any time establish a competing plant, that the city may at any time authorize a competing private company to engage in the business, that the city may at any time divest the company of its property by condemnation proceedings, that the city may at any time regulate the rates and is prohibited from making any agreement for a rate for any period and taking into account also the further fact that under the laws of the state of Iowa any corporation if a local corporation, that is an Iowa corporation owning this property can issue no stock which is not fully paid up when issued and cannot
1953 incur a debt that exceeds two thirds of its capital stock and I wish you would state what return in your judgment would attract capital to such an enterprise?

Objected to as incompetent, irrelevant, based upon assumptions

that are neither in the record and some of them that are not in fact in existence at all.

A. Answering on the basis of the situation as you state it to be, and from my own general knowledge of the conditions here in Iowa as a result of investigations which we have made I don't know that you could pay any rate that would attract capital, I think it would drive capital away, that is the situation. They might possibly if they could get property for half what was its structural value or something of that kind and take the speculative chances of the conditions changing, it might be possible capital would go into a speculative business but certainly not for an investment or operating business.

Cross-examination by H. W. BYERS:

Q. I judge from your answers you regard Iowa as a very undesirable state for investment?

A. I do, yes.

Q. Your house is called what?

A. Harris Trust & Savings Bank.

Q. What is their particular business?

A. Handling of investment bonds.

Q. Speculating in bonds?

A. No, purchasing and selling them.

Q. Well isn't that speculating in them?

A. I don't regard it so no, sir.

Q. How long have they been doing that?

1954 A. Since 1882.

Q. Was the company organized in 1882?

A. As N. W. Harris & Co.

Q. What is its capital?

A. The Chicago Harris Trust & Savings Bank has three million capital and surplus, upwards of that, and the New York and Boston offices as much more. I think it is about seven and one half million all told.

Q. Does that represent its assets now?

A. No, we have got a lot of bonds on hand.

Q. What is the company worth?

A. Why I don't know. Five hundred dollars a share bid for the stock and none offered.

Q. \$500 a share?

A. Yes, sir.

Q. How many shares have they outstanding?

A. 12,500. I mean, I am now simply referring to the Chicago office, the New York and Boston offices are close corporations.

Q. Take them all that are represented by the various concerns, if that is the parent concern in Chicago?

A. What is the question again.

Q. What is the company worth?

A. That is a matter of opinion between the people owning it. It is not for sale as a matter of fact.

Q. Give us your opinion, Mr. Cooke?

A. Well what bearing has that?

Q. We will see when we get through with this cross examination.

A. I don't know that I care to answer it unless the Master rules I must. I don't know how what it was worth would have to do with the gas business in Des Moines.

1955 Q. It might have a whole lot before we get through with it. Let's have your judgment.

A. I have not any opinion on it only according to experience.

Q. There are how many shares outstanding?

A. 12,500—I would say 15,000. A million and a half capital, a million and a half surplus, some undivided profits and the New York and Boston offices have a capital of three or four million.

Q. Been in business how long?

A. Since 1882.

Q. Made your money investing in bonds for the company and for your clients?

A. Yes, sir.

Q. Bonds and stocks and other securities?

A. We don't handle stocks. The loss to our investors has been less than one day's interest on the amount of bonds we have handled.

Q. You have handled bonds from nearly every state in the union?

A. Yes, sir. Some from Iowa.

Q. Not only for the company itself, but for clients of the company?

A. I don't know what you mean by that.

Q. Well you buy bonds for people who deal with your concern don't you?

A. We buy them outright and sell them at retail. Buy them wholesale and sell them at retail.

Q. So that the business of the company then is buying and selling bonds for a profit?

A. Yes, sir.

Q. And it has been quite successful hasn't it?

A. Fairly so I judge.

1956 Q. Now what is there about the laws of Iowa that you think are unfavorable, what particular law do you think is unfavorable to investors aside from this power of the council to fix rates.

A. Well the power of the council to regulate rates at any time is a very undesirable factor.

Q. You have that same situation in your state don't you?

A. No, we can get a franchise there where the rates are fixed for the term of the franchise.

Q. The power to fix rates in your state especially Chicago is given the city council isn't it?

A. That is somewhat of a question. It is being tested I believe in the gas case. The gas company has a perpetual franchise as I understand it, and probably carries with it the right to regulate rates and the other companies have fixed franchises. They have no such law as you refer to here in Iowa.

Q. I am not asking about any law in Iowa, simply asking you if it is not true city councils in your state have the power to fix rates.

A. I don't know it is so.

Q. What state in the union do you know that they don't have?

A. Wisconsin for one.

Q. That is because the whole business is turned over to a commission.

A. Yes, sir.

Q. Now what other states?

A. Well I don't recall of there being many states and I could not recall any besides Iowa at the moment where the right to regulate without power of the council of the city to waive the right to fix a rate of return for a certain definite period exists. As I understand it practically all states have franchises in which rates are fixed during the life of the franchise.

1957 Q. Isn't that what you understand they can do here?

A. No I understand here in Iowa you get the right to do business for 25 years, after that you have got to take up your plant if the city don't want to give you a new franchise and scrap it, junk it, and in the meanwhile any city administration or lawyer who wants to make a reputation for himself can stir up agitation to regulate rates the result being you are in hot water all the time or liable to be.

Q. The ideal conditions from your standpoint would be to let the company make its own rates wouldn't it?

A. No, by no means, I don't think anything I have said would indicate that.

Q. What state do you know of in the union at this time that does not have power to condemn a gas plant, taking it over?

A. I am not a lawyer, I don't know that, I presume there are statute- possibly in all the states, it might be that the inherent power in the state itself to condemn under the exercise of the right eminent domain that might be extended to the cities, I have no knowledge on it.

Q. Why do you say in a state where they have that power it would be an unfavorable condition.

A. Because my impression is that this law in Iowa is peculiar and that I don't consider it a good public policy and I don't believe such conditions—I don't believe the attitude of other states is the same as that of the state of Iowa on that particular subject.

Q. It is not conducive to speculative rates and unreasonable charges.

A. I would say it was conducive to speculative rates, I should think any rate made would be speculative under these conditions. I think it would be anything but fixed.

1958 Q. You would think that would be speculative?

A. Yes; I would regard it as such. Anybody who bought taking his own chances.

Q. What effect does it have on an investment to have the law require corporations to have a paid up capital, does that make it unfavorable for an investment in bonds?

A. Not necessarily for investment in bonds, but it does make it difficult to raise money for the construction and financing of companies.

Q. That is to say you can't sell watered stock in a state where they have that kind of a law?

A. Yes, I think that is a fair statement of it, but I know I have never seen it demonstrated that a law prohibiting the sale of watered stock was going to be conducive to the best interests of the public.

Q. I didn't quite inquire for that suggestion, I think but we will let that stand?

A. Oh you can strike it out, it is immaterial to me.

Q. Now Mr. Cooke, another thing, you say that the fact that city councils have the right to fix rates and that a franchise can only be granted for 25 years, is an unfavorable condition so far as investors in public corporations is concerned and reduces the value of the investment, that is right isn't it?

A. Yes, sir.

Q. That is a fair inference from your testimony?

A. Not necessarily the 25 year franchise feature, that depends a great deal of the attitude of the city.

Q. Would it make any difference to you if there was a provision in that same statute for the renewal of the franchise in the same way you got it in the first place?

1959 A. That is upon the terms you got it, it could be renewed exactly? A twenty five year franchise you have got to take chances where you get off at the end of the term.

Q. You stated you understood the law in Iowa was at the end of 25 years you had to scrap your property unless you made some deal to dispose of it?

A. I understand it to be so. Our experience has been such.

Q. It is not true however that is not the law?

A. I am glad to know it.

Q. Now another thing Mr. Cooke, if the fact that a franchise—let me put it another way—assume there is a public service corporation doing business in a city of say 86,000 people in a city where the term of the franchise is limited to twenty five years and subject to renewal in substantially the same manner required in the first place and the council have the right to fix rates and this public service corporation is without any franchise at all. How would that affect the value of its securities and value of its property.

Q. I want to get your question exactly, I thought you said starting out with a twenty five year franchise?

Q. (Question read.)

A. I don't think they would be saleable at all without getting a new franchise.

Q. Would it have any effect upon the value of the corporation's property?

A. I don't think the property could be sold at anything like a satisfactory rate, value of property is what you can get for it. If you have got something you can dispose of.

Q. It would reduce the value of the property would it not?

A. Yes, and no. There are a great many companies who find themselves in that condition but they have chosen to take the ground that they are not going to run and let the state acquire the property except at a price which is a fair return. They are going to trust to the good faith of the people of the state and work it out in that way and in a great many cases that has been done. But until it is worked out, until the people are satisfied to take the property at less than it is worth or revise or extend the grant on reasonable terms, but as confiscation of the property of course it is not saleable.

Q. Now the argument in this case will be made by the lawyers. You would not take securities of that kind of a company at all would you?

A. Of that sort of a company?

Q. Yes.

A. Not until the franchise had been worked out.

Q. Now in answer to a question in chief you stated that you at some former time and before some commission in Wisconsin told the chairman of the commission that the people were waiting to see what the commission would do. Who did you have in mind by the people?

A. Investors and owners or operators of property with whom I had talked.

Q. You meant people like your own firm that was buying and selling bonds?

A. Yes. And people who were buying and operating properties.

Q. Do the stockholders as a rule operate the properties themselves?

A. Ordinarily yes. They elect a board of directors and they elect a manager and they operate it.

Q. What is the difference between the owner of stocks, investment in stocks and the owner of bonds, investment in bonds so far as personal attention is concerned to the property in which his investment is made other than the election of officers.

A. The stockholders are looking out for their dividends and the bond holders looking out for the earnings and stockholders.

Q. Their interests I presume?

A. Yes, they are watching them.

Q. It substantially requires about the same amount of brains to take care of money if invested in bonds or stock as it does invested in any other kind of property?

A. Not at all.

Q. What is the present rate in the city of Des Moines for the use of money?

A. I haven't any idea.

Q. What are bonds and stocks selling for what rate are public service bonds and stocks selling for in the city of Des Moines?

A. Bonds of the street railway and Interurban in which we are interested are not selling at all. I don't know about the bonds of the other companies.

Q. You don't know anything about the—

A. We are not interested in the gas company or electric light

company. I don't know but what we did handle electric company bonds at one time.

Q. Since you have volunteered the suggestion about bonds of the street railway company how long has it been since your company offered to carry bonds the security to be upon the present street railway system in Des Moines? Are you familiar with the situation of the Des Moines City Railway and its bonds and stocks?

A. Yes, sir.

Q. Your company hold- or did at one time hold substantially all the bonds of the Des Moines street railway?

1962 A. We have placed them with investors, yes.

Q. When you say you follow them through that is because when you sell them you guarantee bonds?

A. No. Our reputation is back of it, we don't like to suffer default on the principal or interest.

Q. So you follow them up for that reason?

A. Yes, sir.

Q. How long has it been since your company made a proposition to the city of Des Moines to loan money on the bonds or on the security of the Des Moines street railway?

A. Since we made a proposition to who?

Q. To loan money to the city of Des Moines and take as security the bonds of Des Moines secured by the Des Moines City Railway.

A. I am not personally familiar with all the negotiations which we had during the franchise matter with the city. The fact that the N. W. Harris Company, Harris Trust & Savings Bank never made any such proposition. The Des Moines City Railway Company may have, as a basis upon which to dispose of their property. I never followed that out. It dragged along for so long, I lost interest in it.

Q. At what rate of interest were the bonds that your company bought taken?

A. Do you mean the bonds of the city railway?

Q. Yes, sir.

A. We purchased five per cent bonds at a substantial discount, I don't recollect just the price a number of years ago. It was a substantial discount for five per cent bonds.

Q. And — what rate was the gas company bonds taken?

A. I don't know, that was twenty or twenty-five years ago.
1963 The bonds were about twenty year bonds maturing in 1903, that was before my time. I think they were sixes.

Q. Were they sold at a discount?

A. I presume they were, yes.

Q. And the discount represented the profits that your company got?

A. Well we don't—we would buy them at a discount and sell them at a higher price, we might not have realized par for them. The difference between what we paid for them and what we sold them for would be our profit, yes.

Q. In other words if you bought them at a discount and sold them at par, then the difference would be your profit.

A. Yes, sir.

Q. Now do you know Mr. Cooke what the securities, bonds and improvement certificates and that class of securities of Iowa cities are selling for today?

A. No. They are selling about as other municipal bonds of the same character.

Q. Well about what rate of interest do they bear?

A. I suppose straight city obligations are selling around about four and a half per cent basis probably now.

Q. Do you know what commercial paper, what rate of interest or for what rate of interest commercial paper is being floated for here in Des Moines at this time?

A. I don't, no sir.

Q. You don't claim to know anything about that?

A. No, I don't know. I suppose about six per cent, I don't know, it might be lower. Might have so much money you are glad to put it out at four for all I know.

Q. It would surprise you wouldn't it, a man in your business to hear that they were carrying as low a rate as three and a half 1964 per cent?

A. No, not at all.

Q. That would not be strange at all you think?

A. No.

Q. It would not be strange to you if I would tell you a large amount of the paper of the business and commercial institutions of your own city was being carried here in Des Moines at a low rate of interest?

A. No. It would be funds that would not be invested in public service securities.

Q. Did I ask you that?

A. No, I volunteered that.

Q. Why did you do that?

A. For your information.

Q. Don't you understand it is your business simply to answer questions?

Mr. GUERNSEY: I object to this, if there is any objection to the answer there is a legitimate way to reach it, that is a motion to strike. It is undignified and improper for counsel to invite the witness to go into an altercation.

Mr. BYERS: I submit the witness ought to be cautioned.

Q. When you stated awhile ago that the money that was invested in public corporations came as I understood your answer largely through concerns such as yours, and then later you said that the small investors or persons who invested their money in the stocks did not get their money in until later until possible through the hands of concerns like yours, you did not mean to convey the impression that that money came from any particular source did you other than the general investing public?

A. If I may answer that freely I will tell you exactly what
1965 I did mean. I mean people buy bonds from us on the reputation of the house without any particular knowledge of the security that we are offering them. They buy it on the reputation of the house, that is an additional security to them the investigation which we make and our reputation.

Q. Do you sell bonds on the open market?

A. Yes, sir.

Q. And I suppose they are bought by people from all parts of the country?

A. Yes, sir.

Q. So that the money does not come from any particular part of the country?

A. They are all clients of the house.

Q. They are scattered all over the country?

A. Certainly.

Q. So that *that* the actual money that finally goes into the stocks and bonds of the industries of the country is furnished by the investing public generally?

A. It is furnished by them through us. The money that comes in is furnished by us and we turn around and retail that out to other people. The money would not come directly from these investors, the United Gas Company of Des Moines could not reach these people we reach.

Q. There are very few public service corporations either in Iowa or anywhere else that you know of where the money for the promotion of the enterprise is furnished locally at the time of the organization and development of the property?

A. Yes, that is true.

Q. That money as a rule always, everywhere, in Iowa and everywhere else is secured in the first instance through just —
1966 concerns as your people are operating at Chicago?

A. We only furnish a part of the money on first mortgage security. Other concerns furnish and finance it all.

Q. You furnished part of the security and there are other houses dealing in stocks and they furnish another part of it, that is true isn't it?

A. They usually furnish it all to begin with and then come around and reimburse themselves by borrowing part of it from us.

Q. As a matter of fact, promoters and people organizing these affair- do it on somebody else's capital.

A. They have to put their own credit back of it. Oftentimes they do it on their own capital?

Q. The money comes as a rule just through such concerns as your house and then the other houses that deal in stocks and speculate in securities of that kind?

A. To a considerable extent the stocks are put in the hands of investors, yes.

Q. You said something about the return, you thought first there ought to be a return of six per cent anyway on the money invested?

A. Yes, that is about—we buy first mortgage bonds on the prop-

erty where the element of risk is largely eliminated on about a six per cent basis. If five per cent bonds we discount so it results in about a six per cent basis. I did say six per cent if that is what you want to know.

Q. Were you then referring to Iowa or generally, was that your opinion generally no matter where it was, Iowa Illinois, or anywhere else?

A. All throughout the west generally. Perhaps down in New England and Massachusetts might get a little less, I don't know.

1967 Q. You said in addition to the six per cent there were some other things that earned a return besides money. What were the other things?

A. There ought to be an allowance for the risk due to the character of the investment.

Q. Yes I will agree to that. Now what other items?

A. Ought to be an allowance for profit or management or something of that sort.

Q. In addition to the six per cent?

A. In addition to the six per cent, yes.

Q. Who manages public service corporations?

A. I stated on direct examination that the properties throughout the company were necessarily drifting into the hands of people — experience and large financial means.

Q. They get their pay out of operating expenses of these concerns?

A. No, not at all. They have got to furnish money and they have got to stand sponsor for it originally.

Q. Then your idea is an investor in the stock of one of these public corporations in addition to the salary that is paid to the managing officer is entitled to some additional sum.

A. The stockholders are really in control of the property but in nearly all companies except in the very small companies the stockholders consist of men who are experienced and who are able to make money out of the property by reason of their experience and financial strength, would not care to put their money in or have anything to do with the property if they could not make that profit.

Q. The stockholders in this concern about which this controversy is being had all live in Philadelphia, they don't any of them live in Iowa.

1968 A. That is an illustration of what I have been trying to say. The fact it takes concerns like the United Gas Improvement Company to furnish money to carry on these properties.

Q. What are they entitled to in addition to reasonable interest on their money?

A. They certainly would not be interested I presume—in every case the United Gas Improvement Company and people of that character who spend all their lives working up a business of this sort would not be interested in just getting six per cent return on it because they can invest their money at that rate and not take any

risk and have no work to do nothing but clip coupons every six months.

Q. Suppose the United Gas Improvement Co. should own this property and are getting a constant steady regular return of six per cent upon every dollar that goes into the property, wouldn't you consider that a profitable property, security that was paying satisfactorily?

A. I would not buy it on that basis if I had money to invest, no sir.

Q. What does your house charge for commission on these bonds and stocks that you handle?

A. Well we figure that we ought to have on handling first mortgage bonds on a property for nothing more than first mortgage bonds and placed directly to the investor on a million dollars feel we ought to have \$100,000. Ten points profit for buying bonds and selling them.

Q. Suppose you were to take over an issue of the bonds of Des Moines drawing say, four and a half per cent interest?

A. You mean city of Des Moines?

Q. Yes, city of Des Moines. A \$100,000 issue, what would 1969 you charge or expect to get?

A. Municipal obligations of the city of Des Moines about one or two per cent we figure.

Q. So one or two per cent in a case of that kind you think would be plenty for what your house did in the way of handling the securities.

A. Yes, no risk or liability, no trouble about it. One and one half per cent on a municipal bond, that would figure ten per cent on a corporation bond.

Q. All kinds of corporation bonds?

A. I mean bond- of a corporation like the Des Moines Gas Company, bonds of that character. We sometimes make considerably more than that.

Q. So it is quite a profitable business if you have a large volume of business.

A. Yes, but a good many houses have gone broke however. If you -re successful in keeping out of failures, if it is all profit and no loss it is a pretty fair business. Unfortunately it does not happen to be that.

Q. Your house I understand is getting along very nicely in that respect?

A. We have made some profit and we have sustained some losses, but we are still in business.

Q. Without going any farther into that, just another question or two. You stated here a moment ago that you thought that a rate of ten per cent would be necessary in order to attract, that is a net per cent of ten per cent would be necessary in order to attract capital to an enterprise to the city of Des Moines. Now did you mean that?

A. I meant that a company ought to be earning over and 1970 above its operating expenses and fixed charges ten per cent on the value of the property adding going value and all that sort

of thing, fair valuation of the property it ought to be earning ten per cent over depreciation in order to make its securities attractive, yes.

Q. What do you mean by fixed charges, interest on bonds?

A. No, I mean ten per cent over operating expenses taxes and depreciation sufficient to keep the principal of the investment unimpaired. Ought to be ten per cent applicable to be distributed to the owners of the property whether they are bondholders or stockholders or what?

Q. Your notion is to make it attractive there ought to be at least ten per cent to distribute to the stockholders in the form of dividends to make it attractive to capital.

A. If it were all stock it would all be in the form of dividends. If you make that the Des Moines Gas Company I would say that even at that basis under existing conditions it would not be attractive if the conditions as to the laws of the state and franchises and the situation is favorable I should say that.

Q. What difference would it make what the laws are if the net earnings are ten per cent right along, make no difference what the laws are?

A. If you could guarantee net earnings of ten per cent.

Q. Well if it had been that right along?

A. It has been that in Des Moines?

Q. I am not asking about any particular company. But if the earnings have been that over a long period of years——

A. Well what they have been does not interest an investor so much as what they are going to be.

Q. Do you have any idea what the stock of a concern 1971 would be worth in Des Moines that was netting 10 per cent over and above all those items?

A. If it were all stock and net earnings of ten per cent they probably would not pay that all out, leave something against a rainy day, something for some surplus and I should say stock in that company ought to be worth par.

Q. Ought to be worth a good deal more than par wouldn't it?

A. I don't see why it should be. If you are limited to ten per cent a great many companies earning ten per cent only sell at a premium because of the probability that they will earn a great deal more than ten.

Q. So they would have to be earning a great deal more than ten in your judgment to be worth more than par.

— I don't know as I would say a great deal more; have to be earning more or a likelihood of it.

Redirect examination by N. T. GUERNSEY, Esq.:

Q. You were asked about a hypothetical proposition made by your concern to the city of Des Moines to loan money on the securities of the Des Moines City Railway Company. Now as a matter of fact the proposition made was to sell to the city of Des Moines the stock of the Des Moines City Railway Company and the stock of the inter-

urban railway company for bonds of the city of Des Moines which were direct obligations of the city, but without going into that I want to ask you whether you are familiar enough to know whether this proposition was made without getting out of an unsatisfactory investment or for the purpose of making a new investment in Des Moines?

1972 A. It was made for the purpose of getting out of an unsatisfactory investment and our experience in the street railway is one of the things that leads us to keep out of the state of Iowa.

Recross-examination by H. W. BYERS, Esq.:

Q. I thought you told me you had not followed the city street railway proposition and didn't know about it?

A. I said it dragged so long, first the city was going to condemn then going to buy and then going to grant a new franchise and the last it was going to have a proposition to buy the stock for bonds of the city. You asked me I think what the rate of interest was on that sort of thing and I told you I didn't recollect.

Q. You say that the offer to take the Des Moines city bonds was for the purpose of getting out of Des Moines. Now after that opportunity your company did buy the stock in this company didn't it so they could stay in?

A. Our company didn't do it. Mr. N. W. Harris took over a large investment in it.

Q. Isn't Mr. N. W. Harris a large owner of your company?

A. Mr. N. W. Harris is the principal stockholder in it and did buy out the local people closer to the situation than Mr. Harris and a little more sick of it than he was because they had it every day and he only got it every six months or so.

Q. Instead of fixing it up to get out of Des Moines then Mr. Harris fixed it up so as to get in further.

A. No, he simply, I think he was going to take a chance on the thing working out fairly and I think it is going to. Attorneys advise him he has a perpetual franchise and got the five cent fare, I think he could stand it for a long pull probably.

1973 Q. I think he could too if he has that. About how much stock was included in that purchase of Mr. Harris after you say they wanted to get out of Des Moines?

A. I don't know how much.

Q. About how much?

A. I don't know sir.

Q. A million?

A. I don't know.

Q. Have no idea?

A. No, I have forgotten what the amount of the holding was. I know Mr. Harris has bought some stock at different times. Just what he bought, or what he paid for it, I don't really know.

Mr. GUERNSEY: I don't think what he paid for it is material here.

Mr. BYERS: I am not asking that.

Mr. GUERNSEY: I can tell approximately what per cent he bought.

A. My recollection is he had about sixty and bought about forty. Mr. Guernsey is familiar with it, I am not.

Redirect examination by N. T. GUERNSEY, Esq.:

Q. Is that one of the illustrations of what you have referred to as conditions which require a man to keep putting in in these propositions instead of permitting him when he wants to to withdraw from them?

Objected to as leading, suggestive and not re-examination.

A. Yes, sir.

Witness excused.

1974 HAROLD ALMERT, being called on the part of the complainant and sworn and examined in chief by N. T. Guernsey, Esq., testified as follows:

Q. Where do you reside?

A. Chicago, Ill.

Q. And what is your business?

A. Engaged in the examination and reporting on public utilities and purchase and management of public utilities.

Q. With what institution are you connected?

A. H. M. Byllesby & Co., Chicago.

Q. I wish you would state so we get it in a concrete instead of an abstract way and that the Master will understand it clearly what business H. M. Byllesby & Co. are engaged?

A. H. M. Byllesby & Co. own and operate public utilities such as gas electric light, street railway, telephone and water companies in something over ninety cities and towns in the United States. They also have a department which designs and supervises the construction of this same class of properties for others and my particular department is the work for examining and reporting upon this same class of property which are in trouble physically and financially or both and also in the examination and purchase of this class of properties for H. M. Byllesby & Company.

Q. How long have you been engaged in this business?

A. Directly in what I have just stated or beginning in the public utility business.

Q. Well beginning in the public utility business?

A. Nineteen years in September.

1975 Q. How long have you been engaged in this business of buying and selling or connected with the business of H. M. Byllesby & Co., you have referred to?

A. I was engaged in the same class of business before going with H. M. Byllesby & Company and been engaged in it with H. M. Byllesby & Co., for three years and for six years previous to that.

Q. In what portions of the United States have you had experience in these matters?

A. In every section of the United States, but principally west of Chicago.

Q. Does H. M. Byllesby & Co. in connection with this business have anything to do with either acquiring or selling the securities of public service corporations?

A. They handle securities on their own properties, such property as they own and operate themselves but do not deal in securities or properties that are not owned by themselves or operated by themselves.

Q. I wish you would state how the money for investment in these public utilities is secured.

Objected to as incompetent, irrelevant and immaterial.

A. We have projects brought us from almost every conceivable source, local people in various states who have new projects they want to build and going to their local bankers and advised by them to come to us. Others find their way directly to us without going through any banks or through their lawyers and if after a statement of what the possibility of their project is it looks sufficiently interesting we send out our engineers to make an examination of the conditions as they exist to see whether or not the project looks

feasible and if it is going to look profitable and if so we undertake the financing of it and the designing and construction and operation of the property. That is we put up our own money for the preliminary work that is necessary of engineering and making surveys and plans and specifications, preliminary reports and undertake the underwriting of the project and put in our own money either all or in part depending on the size of the project. If it is not too large we put in all our money until the proposition is a going concern with sufficient earnings to interest bond houses. If the project is too large for us to finance in that way we secure a loan from banks or trust companies who give us sufficient money to take care of the proposition until it is a going and earning concern and dispose of blocks of this underwriting to banks, bond houses and a small portion of it to individual clients of ours who are in the habit of investing in that class of investments.

Q. Before I forget it do you go into these enterprises if they do not promise any profit, but simply promise you a chance to get your money back?

A. Certainly not.

Q. Now what is it that induces you to go into these enterprises and put your money in and to incur the risk that your money won't come back?

A. The opportunity to make a sum of money in addition to what we might earn by investing that money in a class of securities or in a class of investment which would be absolutely safe and require none of our time and attention or ability.

Q. Now Mr. Almert, will you tell us whether you know what return is necessary under favorable conditions to attract capital in this general locality into these public service enterprises, I don't ask you how much, but whether you know how much?

1977 Objected to as incompetent, irrelevant and the witness not shown competent to testify with respect to conditions in Des Moines.

A. I do.

Q. I wish you would state in your judgment what is the minimum return which is anticipated, which is necessary in order to attract capital into such enterprises.

Same objection.

A. Before stating that I would have to know the conditions under which—

Q. Under favorable conditions? I intended to insert that into the question.

Same objection.

A. Ten per cent or over.

Q. Now what is the fact as to whether this return, that is the return which would be necessary to attract capital is a variable factor and if it does vary I wish you would explain some of the things you take into consideration in the actual practical determination of some of these questions of investment in solving this question.

Objected to as immaterial and incompetent.

A. It varies with our estimate of the hazards surrounding such an investment. Do you want me to name the hazards?

Q. In a general way, yes, explain what the things are you take into account?

Same objection.

A. We would first expect a return such as we could get without any attention and which was the general prevailing rate. In addition to that we would determine the hazard there would be as to the length of franchise, possibility of renewing the franchise on its expiration without election and without serious concessions upon the provision of favorable rates during the length of that franchise and upon the conditions of the earning capacity of the people living in that territory to pay such rates, in other words what the traffic will bear and its competition with other commodities supplying the same field, if it was a gas business whether or not the electric light and other classes of light were in strong hands making low rates with vicious competition and whether or not the laws of the state as a whole were favorable to encourage investment of capital in that class, all these are hazards we would consider an aid to determining what the total return ought to be to be safe.

Q. You also take into account the community and the history or prospects for the future.

A. That is one of the principal things we consider and its growth and its history back as far as possible to determine what the probable growth in the future would be, that would be considered as one of the conditions and what the possible development per capita would be, etc.

Q. To put this a little more in the concrete, suppose you were to look over the city of Des Moines and you found it had a population here of something over 86,000 people, that it was growing steadily and seemed to be desirable so far as the historical features went and the prospects for the future as you could incur them from the past and then you found that under the laws of the state of Iowa a franchise could be granted for no period longer than twenty five years, and that there could not be in the franchise an agreement to extend it and that that would have to come up as an entirely new proposition at the end of the 25 year period, would that be a factor 1979 which you would take into account as affecting the desirability of the investment.

Objected to as incompetent and it is certainly irrelevant to any issue that is involved here, as the Master suggested the other day it might be relevant if the question involved was the reasonable rate, but no such question — involved here and — is irrelevant to the issues before the Master.

A. I would take that into consideration, yes.

Q. Now if you found that under the laws of the state of Iowa that a city granting a franchise could not agree with the grantee in the franchise upon what the rate should be there during the term of the franchise or for any term but that the city had the right to regulate rates at any time and such an agreement as I have referred to was expressly prohibited, please state whether or not that in your judgment would be a material factor affecting the desirability or attractiveness of the investment?

Same objection.

A. That would be a most serious factor.

Q. And would it add to or detract from the desirability of the investment?

Same objection.

A. Decidedly detract from.

Q. Suppose further in examining a matter you found that the laws of the state expressly prohibited the granting of an exclusive franchise for any term and that under the laws of the state the city had the power at any time either to start a competing plant or to grant to some individual or private corporation the right to start 1980 such a plant, please state whether those items would be factors in your judgment affecting the desirability of the investment?

Same objection.

A. They would.

Q. Suppose that further you find that under the laws of the state the city had the right at any time whether the operator resisted or not to acquire by condemnation proceedings the property of the company if one should be organized to go into the business here, would that in your judgment affect the attractiveness or desirability of the investment?

A. It would depend upon the safeguards that would be thrown around it and the basis on which the property would be acquired.

Q. Assume that the price is not fixed, the price is to be determined by condemnation proceedings?

A. It would certainly affect it.

Q. Assume that a gas plant were constructed here and its earning capacity develop- at a cost of 31 or 32 hundred thousand dollars and that under the laws as they existed, a franchise could not be granted for a period longer than 25 years, that no exclusive franchise could be granted, that no agreement could be made as to rates to be charged by the company, that the city had power to regulate rates, that the city had the power to establish a competing plant, that the city had the power to authorize either individuals or private corporations to establish competing plants, that the city had the power to divest the company of its property and cause it to make an involuntary sale of it by condemnation proceedings and assume further that under the laws of the state a corporation if a corporation was necessary to operate this property could not issue any stock that was not
1981 fully paid and could not incur any indebtedness in excess of two thirds of the amount of its outstanding capital stock, what would you say as to the amount of the return in excess of operating expenses including taxes and a sufficient amount to provide for depreciation that would be necessary in order to attract capital to such investments?

Same objection as to former questions.

A. I could not nor do I believe anyone else could estimate what would be a proper return under such conditions.

Q. Please state whether or not you think a prospective or estimated return of ten per cent would do it?

Same objection.

A. Certainly not.

Q. You have had some experience have you in estimating cost of building these properties, reproducing these properties?

A. Yes, sir.

Q. For how long?

A. Nine years.

Q. What do you say as to whether or not it is necessary in making such estimates to make an allowance for omissions and contingencies and things of that kind and if so how much?

Objected to as incompetent, immaterial, and not the subject of expert testimony.

A. It would depend entirely upon my knowledge of the engineer who made the original estimate. And would vary all the way from ten to 100 per cent, depending on the man who made the estimate.

Q. That is a broad field. I wish you would state what your experience has been in the matter and what your experience has demonstrated as to whether an estimate which does not allow for these matters is insufficient to cover actual cost of construction.

1982 Objected to as incompetent, immaterial and not the subject of expert testimony.

A. No estimate of the reproduction value of a property should be made without allowing a certain percentage for that item.

Q. And why? What has your experience shown about it?

Same objection.

A. My experience has shown that no matter how carefully an inventory is made and how careful an estimate is made of the reproduction value of the property there are many conditions which cannot be seen or foreseen and omissions are always made in making an estimate of that nature so that a minimum of ten per cent should be made at least in the cost of reproduction and in addition to that a liberal allowance should be made for the cost of piecemeal construction where property has been developed and built up over a long period of years.

Q. I wish you would state whether in your actual experience in building these plants you find it necessary to incur any expense on account of engineering and supervision and things of that kind?

Mr. BYERS: Oh that is so apparent I would not think counsel would want to take the time with it.

Mr. GUERNSEY: All right I will withdraw.

Cross-examination by H. M. BYERS, Esq.

Q. The mistakes in these inventories are always I suppose on the same side.

A. There are rare exceptions where an engineer over estimates.

Q. I am not talking about an engineer, I am talking about an invoice of property where you have counted the pieces, measured the buildings and all that sort of thing and where it is all carried
1983 out into figures your idea is the mistakes are always one way.

A. Yes, sir.

Q. And that is the reason that you would allow ten per cent.

A. At least.

Q. To cover mistakes. Now if you had a case where several engineers had followed each other on the witness stand and all testified that they checked up every item and every article and they chanced to find mistake of one brick—and we throw that early in this case, would you still say there ought to be ten per cent for omissions?

A. If they had not already included it in their estimates I would say so.

Q. They all swore they checked it up thoroughly and one man who was brought in as a witness with respect to the distribution system was so accurate and so certain of himself that he sat upon the witness stand and gave the number of miles of mains, the size of the mains, the streets upon which they were laid, the years in which they were laid and then boasted about not having made a mistake. You still ought to add ten per cent to the distribution system had you?

A. Yes, sir.

Q. Notwithstanding what he said about it?

A. Yes sir.

Q. That he hadn't missed a thing?

A. I would not say definitely ten, but ten or more.

Q. Ten or more is what you said about returns. What you meant on returns was ten per cent or as much more as you could get wasn't it?

A. You are shifting now to returns?

Q. To returns.

1984 A. Ten or more should have in a case where the hazards—

Q. When you say or more that means as much more as you could get?

A. Not necessarily.

Q. Well how much more?

A. Depend on what these hazards were and what figure it would be necessary to have for taking that chance on?

Q. What difference would the hazards make if you are getting ten per cent. How much more ought you to have over and above that?

A. There are lots of conditions surrounding investments in this class of property which are such hazards that no sane man would invest his money for a prospect of ten per cent return only.

Q. I am just trying to get an idea of how much more you think would suit the ordinary individual that was dealing in that kind of property?

A. I would have to know the other conditions.

Q. Suppose conditions were just as bad as they could be but still the property earned ten per cent on the investment now how much more ought you to have because the conditions are as bad as they can be.

A. That would put the investment in the speculative class out of our line and our company would not put money in under those circumstances.

Q. An investment earning ten per cent would be speculative in your opinion?

A. If you qualify that by stating what the prospects of the future earnings would be and what safeguards would be furnished I can answer that question.

Q. Well just imagine the worst possible conditions you could, how much more ought you to have than ten per cent.

A. I should say there would not be anything sufficient to
1985 warrant a man to put his money into conditions the worst imaginable?

Q. Well Mr. Guernsey stated a whole lot of things here you said were very unfavorable. Now how much more ought you to have for these unfavorable things he referred to, how much more than ten per cent?

A. I would say I would not and our firm would not put their money into property of that kind under conditions stated.

Q. I say if you were going to put it in how much more should you have?

A. I can only answer that by saying he should not put his money in.

Q. Of course that is not an answer. You said a man ought to have ten per cent or more depending on the hazards and conditions. Now take the conditions he refers to how much more than ten per cent do you think a man ought to have?

A. I would say these hazards are too great so that I could not estimate how much in addition to ten per cent he should have.

Q. Now let me put this question to you. You of course have no interest in this law suit?

A. None whatever.

Q. You don't have any stock in gas properties?

A. Not in this one.

Q. Not in any gas properties generally?

A. I have in one.

Q. What one is it?

A. Up in Minnesota.

Q. What town?

A. Stillwater, Minn.

Q. The only gas company there?

A. Yes, sir.

1986 Q. How long have you had the stock?

A. Three years.

Q. What is the rate up there, what are you getting for gas up there?

A. \$1.50 less discount scaling the rate down as low as \$1.05.

Q. How big a town is Stillwater?

A. Stillwater itself only 12000 population. But we serve a number of surrounding towns at higher rates than that.

Q. When you serve town- farther away you get more for it?

A. Yes, sir.

Q. Stillwater is about 12000?

A. Yes, sir.

Q. Are you just a stockholder or are you one of the managing officers?

A. Just a stockholder.

Q. You have no interest in any other gas properties?

A. No, sir.

Q. Does your firm?

A. Yes, sir.

Q. In a general way how large an interest, I don't want to inquire into private business, but in a general way?

A. They own the controlling interest in some thirty or forty of them.

Q. Then of course they are very deeply interested in maintaining rates, what you would call fair rates.

A. Fair rates, our commodity will not pay prices too high, you can't sell it.

Q. With that understanding of your relation to the gas business I want to put this question to you. I suppose you would be fair enough to say to the Master that conditions that reduced the value of the investment would also reduce the value of the property behind the investment wouldn't you?

1987 A. As a going concern, yes.

Q. Mr. Guernsey called your attention to certain laws in Iowa from which you indicated there were hazards and the condition which you indicated would reduce the desirability or value of the investment. Now among other things you stated the statute which provides for the condemnation of gas plants in this state and now how far do you count that, to what extent do you count that a hazard to the investor?

A. Unless the conditions of the contract between the public utility in question and the city or state as the case may be specifically provides the basis on which the property is to be condemned and taken away.

Q. Well that could not be done could it in a statute, the price or value of property could not be fixed in advance could it?

A. The basis of it could be fixed.

Q. And an investor would not want any more for his property than its real worth or value on the market where it was to be taken would he?

A. He is not any different from the average citizen in that respect but at the same time the experience has shown that the interpretation of a majority of the statutes of that nature which are not sufficiently specific and the inadequate knowledge on the part of the public and city councils are such that in their estimation—

Q. Well there is no city council involved.

Mr. GUERNSEY: Let the witness finish his answer.

Q. So the fair price of condemnation would be the present value of the physical plant?

A. Well that might be your opinion about it. That is not 1988 my opinion but unfortunately this is general all over the country and where such things exist I would hesitate seriously to recommend the investment of our firm's funds where such general conditions exist and where they were not more specific.

Q. Don't the investor have exactly the same opportunity and same show with respect to the value of his property in the courts of the state as the people or city that is going to take it away? He is not entitled to any advantage in that respect is he?

A. In the testimony the burden of proof is put upon him and very expensive litigation necessary to prove it, he may be broke before he gets a chance to prove it.

Q. Isn't this what you mean and all you mean that a statute that provides for condemnation affects the security simply because it disturbs the permanency of the investment, that is that it may be taken away at any time, to that extent isn't that all the hazard there is in that kind of statute?

A. Not to my interpretation, my interpretation not only disturbs the permanency of the investment and as they generally operate you may not get a good fair price for the property when it is taken away.

Q. That assumes that the courts of the state are not going to do the right thing. In this state the law provides that in case of condemnation of property of this kind the value of the property shall be determined by three district judges and provides for their appointment by the chief justice of the supreme court as I remember it, or

the supreme court itself. In such a tribunal as that you would not ask that the investor had any advantage over the community would you?

A. Would not ask any advantage.

Q. No. Now another thing he included in his question the 1989 fact that the franchise could only be granted for twenty five years and that the city council had the right to fix rates and could not fix them to cover any particular period. You said that that would be a very serious objection and to some extent I am inclined to agree with you as far as speculative investment is concerned or so far as more than what we regard as a reasonable return upon money in this state is concerned. Now suppose that the situation was not only that a franchise could not be granted for more than twenty five years but here is a gas company that has not any franchise at all, not even for twenty five years and has no legal right so far as—I won't put it legal right, but has no contract right or franchise right to use the streets at all, would you say that would not only affect the value and desirability of its securities, but it would affect the value of its physical property wouldn't it?

A. Yes, sir.

Q. If your house was to send you to Des Moines as it undoubtedly from your testimony has sent you all over the country to look at gas properties both for the purpose of investing in them themselves and recommending other investors to invest, and you found a condition like that and you were going to advise with respect to the value of the property as a commercial transaction would you make a very great reduction on account of that condition, wouldn't you if you were going to advise the purchase of it at all?

A. You mean the condition that they had no franchise at all?

A. Yes, sir.

Q. Now Mr. Almert would it make any difference in the desirability or the value of the securities of a public service corporation if the securities did not exceed in amount the actual physical value of the property?

1990 A. Referring to bonds only and bonds and stocks.

Q. Bonds and stocks, take the securities generally?

A. The greater the value of the physical property back of the securities, the more valuable the securities.

Q. The security is much more desirable and will sell on the market with less difficulty and at a better discount rate if the securities do not exceed the actual investment in the property.

A. Not on that condition alone.

Q. All other conditions being equal of course?

A. All other conditions being equal?

Q. Yes.

A. You may have an immense plant several times too big in the territory.

Q. I am assuming you do not have any abnormal condition in that respect?

A. Yes, sir.

Q. Did I understand you to say that in your employment that you passed on securities?

A. I pass upon the properties themselves and estimate the amount of securities that are reasonable and safe.

Q. To carry?

A. Yes, sir.

Q. I don't suppose you claim to know anything about local conditions in Des Moines?

A. None whatever.

Q. Nor for what money is loaned for over the bank counter.

A. None whatever.

Q. Nor what securities sell for in Des Moines?

A. I do not.

1991 Q. Nor the value of gas stock in Des Moines or anything of that kind?

A. No, sir.

Redirect examination by N. T. GUERNSEY, Esq.

Q. Will you please state whether your company has ceased investing in these utilities in Iowa on account of these local conditions.

A. Yes, sir.

Witness excused.

1992 ANDREW COOKE being recalled for further cross examination by Hon. H. W. Byers, testified as follows:

Q. Do you have any interest in any gas property anywhere?

A. I have no interest, I hold no stock in any public service company.

Q. Do you have any financial interest of any kind in gas properties?

A. No, as a matter of policy I confine myself to the business I am in, believing I am better qualified to pass upon securities if I keep out of personal investments in the property themselves.

Q. Does your house—I am not sure whether you were a member—

A. I have an interest in the business if that is what you mean.

Q. Does your firm carry any gas bonds?

A. Carry gas bonds?

Q. Yes, for sale?

A. Yes, sir; a very large amount.

Q. So to the extent at least of the securities that they own and have sold they are to that extent interested in what you term a fair rate upon the sale of gas.

A. Yes, sir.

Q. Maintaining what you call fair rates?

A. Yes, sir.

Witness excused.

1993 W. J. HAGENAH being continued on cross examination by R. O. Brennan, Esq., testified as follows:

Q. We went over this table at page 43 of your report this morning to some extent on the annual investment on the 8 per cent earning basis, also in connection with Exhibit 26. I just want to call your attention to the first column of figures there for the twelve months ending June 30, 1887, and I want you to tell me what the book cost of the property was at the close of that year?

A. \$308,776.60. That represents the cost of the property, the cost of the physical property at the close of the fiscal year ending June 30, 1887.

Q. That does not include working capital.

A. No, sir.

Q. Does that include the 8 per cent of depreciation?

A. No, sir; that is taken directly from the company's books.

Q. Well does that include the additions?

A. It includes the additions from year to year up to the end of the period, at which you are asking the value of the property.

Q. You start in here with the value of the plant twelve months ending June 30, 1887, \$308,983.00. Of course that includes working capital.

A. Which figures are you referring to now?

Q. The first figure \$308,983.

A. Yes, sir.

Q. Could you tell me what the structural cost or book cost of the property was at that time, the book cost of the property in 1887?

A. The book cost of the property at the close of the fiscal year ending June 30, 1887, was \$308,776.10. The figure which you referred to a moment ago of the fiscal year ending June 30, 1887, and then including working capital it is \$308,983.

Q. At the close of the year then with the additions the actual book cost of the property with additions is \$308,776.10.

A. This is the close of the fiscal year 1887.

COURT: That is the fiscal year, he asked about the year?

A. I have not the figures for the calendar year.

Q. It is for the twelve months?

A. Yes, but it is the fiscal year, not the calendar year.

Q. When does the fiscal year begin?

A. July 1st.

Q. This shows the book cost for the fiscal year ending June 30, 1887?

A. Yes, sir.

Q. Now if you had carried your table say to December 31, 1915, using about the same averages that you have used and keeping in mind the normal increase in business so as to ascertain the gross earnings have you computed what the value of the investment would be at the end of that period?

A. 1915, no I have not gone any farther than the actual time ending in 1910. I have not gone into any future times. No estimation or speculation as to what would be the earnings or expenses for the future.

Q. You have not gone into that at all?

A. No, sir.

Q. Since 1906 according to your method of computation about what has been the increase in the value of the investment in round numbers?

1995 A. I worked that out yesterday I believe, but I have not the figures here now. I will add it again and subtract it again. I find here two figures which refer to our discussion yesterday and from that I compute that the increase in the cost of the plant since the Des Moines Gas Company assumed control up to the end of the calendar year 1910, was \$810,360.

COURT: I find there was to the Des Moines Gas company under this table schedule 1, Exhibit "B" \$1,117,655.89. Is that correct?

A. Yes, that is the figure I have here in the margin of my table.

Q. Then the difference between that and \$1,928,016.65 is what?

A. It makes that. Makes \$810,360.76.

COURT: I notice the figure \$139.42 in red?

A. That is a year instead of being an actual addition to the property there was a net reduction in the cost of the property due to taking out of service certain property which had previously been charged to construction.

COURT: That you do not add in?

A. No, that is deducted.

Mr. BRENNAN: This 810,360 representing increase in value of the property since the Des Moines Gas Co. took it over would be shown on the books to be verified by the vouchers and records of the company would it not?

A. Yes, sir.

Q. And you did verify that much?

A. Yes, sir.

Q. You said this that there had been put into the plant through dividends or otherwise \$810,360.65, do you?

A. Not as to what you state. I didn't verify any additions to property due to dividends. There were additions to property due to actual expenditures for construction of properties amounting to \$810,360.76?

1996 COURT: Does that include money expended for replacement that you showed on page 36?

A. No, sir; this was eliminated.

COURT: None of that is in?

A. No, sir.

Mr. BRENNAN: This represents the amount shown by the books of the company that was actually expended in the plant. The books show that this amount was actually expended for construction of properties and you went over that to verify it and know that it was actually expended for that purpose.

A. I analyzed the construction account and found that money had been expended for specific construction purposes. There were vouchers and receipts showing expenditures and such charges were carried into the general ledger. I didn't go over to the premises to see whether there was in existence the specific piece of property

which the books showed had been charged to construction. I made merely the audit.

Q. You did satisfy yourself did you not from the vouchers and data in the office of the company that that amount had been expended?

A. Yes, sir.

Q. Covering four years.

A. Yes, sir.

Q. Except the \$285,000, of course you didn't see a voucher for that?

A. There is no voucher for that.

Q. That is made up as you stated from verbal statements?

A. No, there is a charge on the books for \$280,000 but it appears in the organization of the Des Moines Gas Co.?

1997 Q. And that you attempted to explain how it might have occurred and how it got on the books at that time?

A. Yes, and to the best of my knowledge how it did occur.

Q. Well you don't know anything about it personally?

A. I know there is a transaction on the books showing that property was turned over to the value of \$280,000 represented by this charge, I know that the property turned over consisted of several specific classes, one million foot holder, one hundred thousand gallon oil storage tank, certain real estate and specific distribution property in Valley Junction.

Q. You know that from what has been told you?

A. Yes, in answer to my inquiry what this specific charge covered.

Q. As far as you are concerned it is absolute hearsay outside of the record on the books?

A. Yes, as to what the specific property it was, it is hearsay.

Q. You took pains to find out just what that item was, it attracted your attention?

A. I just described how I went about it.

Q. You made a memorandum of the items which it was claimed had gone into the plant?

A. In that specific item?

Q. Yes.

A. Not any memorandum, I just gave you the four items, I didn't have to make a memorandum for that.

Q. You stated on yesterday in answer to one of my questions that there was no working capital or discount on bonds or accrued taxes, anything of that sort included in this—

A. I stated that there was no working capital in there, that as far as I knew there was no accrued taxation charged and while thinking of discounts in another sense I believe I stated that

1998 there was no discounts on securities charged to construction. Later on I corrected that and said there was a charge covering discounts in scattering amounts which I thought approximated about \$75,000, might be a few thousand more or less.

Court: A discount of \$75,000 or on 75,000?

A. No the discount amounted to something in the neighborhood of \$75,000 a little more or less. That is included in my table.

Q. You understood the question that was put to you did you not and you were asked this question you know there is no working capital or discount on bonds or accrued taxes or anything of that sort included. Ans. No, sir; only physical property?

A. I must have misunderstood your question because there would have been no object in my saying there were no discounts in there, that is why later on corrected it. I want to correct it now by saying there are these small discount items carried in the total about \$75,000 more or less. That is my present statement in full understanding of what I thought you meant in your question.

Q. You didn't correct it until Mr. Guernsey asked you on re-direct examination?

A. I spoke to Mr. Guernsey about it.

Q. I see from your cross examination on yesterday you were asked this question, did you include anything for discount on bonds. Ans. No, sir; not to my recollection. There was not any way by which you could have misunderstood that question was there?

A. That was correct as to my recollection at that time. That is why I am trying to correct it now.

Q. And after that you were asked this direct question, did not depend upon your recollection, there is no working capital or 1999 discount on bonds, accrued taxes or anything of that sort included. Ans. No, sir; only physical property.

A. I have explained my answer to that question.

Q. That is all the explanation you want to give?

A. That is all. I say it simply shows from that testimony that I find out that I did not understand that question at that time.

Q. Didn't understand the question put to you direct as to whether or not this item included discount on bonds?

A. I said I didn't know there was to the best of my recollection.

Q. When the direct question was put to you do you mean to say you didn't understand what was asked?

A. I understood what you asked but I didn't remember what you were trying to get.

Q. You said there only physical property didn't you?

A. I am telling you now there is a charge in there for discount.

Q. You said you carefully audited these books going over the period of five years, is that right?

A. I think so.

Q. Did you look up the securities that had been issued by the company?

A. I have a table in my report here of securities, schedule 1, Exhibit "G", Schedule 1, Exhibit "H".

Q. Do these show any discount on bonds Mr. Henegah, take for instance *E*xchedule 1, Exhibit "H"?

A. Yes, there was a discount on those bonds issued, that was the discount I referred to.

Q. Is it shown on this schedule 1, Exhibit "G" in Exhibit 23.

A. I think so. I don't see it now, it may be in there I would have to read it over carefully to find it.

Q. Can't you read it over carefully and tell us?

A. I have read it over and I don't find any reference to discounts in there.

Here the further hearing was adjourned until 9:30 A. M. Tomorrow.

2000

Thursday Forenoon Session.

AUGUST 10, 1911, at 9:30 a. m.

Counsel for the respective parties all present, except Mr. N. T. Guernsey.

Testimony on part of complainant resumed as follows:

WILLIAM J. HAGENAH, re-called for further cross-examination, examined by R. O. Brennan, Esq., testified:

Q. I believe, Mr. Hagenah, last evening we were discussing discounts on securities—that is as you remember it, is it Mr. Hagenah?

A. Yes, sir; I just finished reading a part of my report and come to the conclusion I had not shown in my analysis of the bond accounts any discounts.

Q. The bonds which you set out in Exhibit 23 and the history of the bond issues shown therein do not show any discounts?

A. They do not show the market price at which the bonds were sold.

Q. But I understand you now say in answer to a question put to you by Mr. Guernsey that in this report you have incuded discounts on securities?

A. Yes, sir.

Q. And that represents a part of the value of the investment as determined by you by this methof?

A. No, sir, it represents a part of the cost as shown by the books.

Q. That is, part of the \$1,928,000?

A. Yes, sir.

Q. Well, now, you take some of these items, I would like to have you separate the discounts, taking these twelve months ending February 28, 1907, if there were any bonds sold during that year, and tell us just how much is included for discounts on securities??

2001 A. You are referring now to schedule 1, Exhibit B, of my report?

Q. Yes, schedule 1, Exhibit B, and Exhibit 23.

A. I can't separate that, Mr. Brennan, for any particular year, but I can tell you the total amount of discounts charged to construction since 1907, up to and including 1910.

Q. Beginning the first day of March, 1908?

A. 1906—during the life of the Des Moines Gas Company?

Q. All right; well commencing then with February 28, 1906 and up to and including the year 1910, tell us how much of that amount represents discounts on securities.

A. The total discounts on bonds charged to the construction cost of the physical property during the history of the Des Moines Gas Company until the close of the calendar year 1910, was \$33,950.

The MASTER: Can you point out the bonds and the rate of discount?

A. Between the years, or rather between the months of October 1906, and December 31, 1910, the company sold \$412,000 of par value, first mortgage, five per cent, twenty year gold bonds to reimburse the company, or the treasury for expenditures on account of construction. Of these bonds \$267,000 was sold at the price of ninety; that is a discount of ten per cent, making the discount on that sale \$26,700—

The MASTER: Is that the discount?

A. That is the amount of the discount, ten per cent, which is \$26,700. \$145,000 worth of bonds out of the total of \$412,000 was sold at ninety-five, or a discount of five per cent, the discount in that case being \$7,250. The sum of these two discount items equals \$33,950. The reason I can't give the discount for any particular year is because the company does not sell bonds in small amounts to reimburse small construction items. The practice is to wait until there is an accumulation of indebtedness and then to issue bonds for the larger amount—it affords a better market.

Q. Now, Mr. Hagenah, do you remember, or have you any information as to when the Des Moines Gas Company sold bonds, during what year?

A. I don't know the last particular issue other than that the total bond issue during the dates which I gave amounted to \$412,000. I don't know the date of the last issue.

Q. Well, do the books show that or is there anything in your report to indicate in this analysis of the bond account which you set out in Exhibit 23?

A. My report shows that the last sale of bonds in 1910 was under date of August 31, to the amount of \$49,000.

Q. Do you know at what price the bonds were sold under that issue?

A. No, except that they went either at a discount of ten per cent or five per cent. I don't know in which group of classified sales that particular item occurred. No bonds during the life of the company were sold for less than ninety and the smallest discount was five per cent.

Q. Well, it would be important to know, would it not, in getting your book cost of the property inasmuch as you have considered discounts, to know the exact amount at which the bonds were sold?

A. Well, they went for either ninety or ninety-five. The total discount charged to construction during that period was \$33,950.

Q. Is that the actual discount or average?

A. Actual discount.

Q. You can't separate and tell us, for instance, this bond issue under date of August 31, you can't tell us whether this sold for ninety or ninety-five?

2003 A. No sir, I can't.

Q. Would the company's books show that?

A. Yes, sir.

Q. You can furnish us that information, Mr. Hagenah, in connection with this report, Exhibit 23?

A. I don't know whether I can or not; the books show it.

Q. And the issue of date April 30, 1910, \$32,000, at page 10 of your report, do you know at what price these bonds were sold?

A. I have to make *make* the same answer to each one of the individual items that is given in the report. The item I have given you represents the total discounts during that period.

Q. Were you furnished by the company at the time of making this part of your report a memoranda of the amount of bonds sold and the price at which they were sold?

A. No, sir.

Q. And when you were here going over the company's books, auditing the same, did you take a memoranda?

A. I took a memorandum of the total discounts, but not of the individual bonds issued. I did not make any classified analysis of each particular sale. I took the total of the sales; some sold at ninety and some at ninety-five, making the total discount that I have stated.

Q. Now, from your audit of the books of the company, did you find that any bonds had been sold prior to February 28, 1906?

A. Yes, sir.

Q. And can you tell us the amount of the issue or issues of the bonds for the period preceding the 28th day of February, 1906?

A. Those years cover the corporate history of the Capital City Gas Company. That company at the time it was absorbed in the re-organization resulting in the Des Moines Gas Company had 2004 a total outstanding bond issue of \$400,000. These bonds were issued in the following manner: On December 31, 1888, the company issued \$200,000 par value bonds to cover the construction of a water gas plant and patent rights incident to the use of such equipment. Under date of February 1897 \$225,000 par value bonds were issued, dated January 1, 1897, and running for a period of ten years, of which \$200,000 was issued to retire the \$200,000 of bonds issued to cover the cost of installing the water gas apparatus and the costs incident thereto; and the remaining \$25,000 to cover real estate expenditures. In October 1899 the company issued bonds to the par value of \$73,000, which were dated January 1, 1897. These bonds were issued for cash to reimburse the company for construction and betterment expenditures. In April, 1901, the company sold bonds for cash to the par value of \$58,000, the bonds bearing date of January 1, 1897, and were sold, like the preceding issue, to reimburse the treasury for construction and betterment expenditures—

Q. 1897?

A. They bore date of 1897 and issued in 1901. In January 1902, the company sold an additional block of bonds to the par value of \$44,000, also to reimburse the treasury for construction expenditures; these bonds also bear date of January 1, 1897. The total authorized issue therefore of \$400,000 is explained by these sales, of which \$200,000 was issued to retire the prior and previous

issue of \$200,000, \$25,000 for real estate, and \$175,000 was issued to reimburse the treasury for betterments. These bonds were all disposed of at par.

Q. No discounts?

A. No, sir; so I will have to correct the statement I made I think on two occasions yesterday, that I thought the discount charge 2005 in the construction account was about \$75,000 a little more or less; I am wrong in that; it is only \$33,950.

Q. These bonds dated in 1897 and sold in April, 1901, were sold at par, with accrued interest, at date of sale, is that your understanding?

A. That is the practice, yes sir.

Q. Is that what the books show?

A. I don't remember about that.

Q. That would be important to know.

A. It is on the books.

Q. Well, it may be. Your analysis of the bond record of the company, you would be interested in knowing whether bonds were sold almost four years after they were dated, you wouldn't expect the company if they were sold at par to get accrued interest as well?

A. You do not distinguish in your question between the date the bonds were authorized and issued.

Q. I understood you to say the bonds were dated in the year 1897 and were in fact issued or sold in 1901, four years thereafter?

A. That is the authority under which the bonds are issued; they bear the date of the general mortgage.

Q. Do the bonds on their face bear the date of the year 1897 and they were sold in 1901, four years thereafter?

A. My recollection is that if the bond does not carry interest during the time from its authorization to the date of issue, interest began after the date of issue.

Q. What I want to know, in your examination of the books and bond records of the company, what the fact is as to the date which these bonds bore?

A. I don't remember that, the actual fact, in this particular case.

2006 Q. So that you would now say in this table shown at page 5 of Exhibit 23 in all the items preceding February 28, 1907, that nothing is included therein to represent discounts on securities?

A. To the best of my knowledge nothing is included.

Q. To the best of your knowledge, now, that knowledge is based upon careful and painstaking audit of the books of the company?

A. Yes, sir.

Q. You satisfied yourself after a careful, painstaking investigation and audit there were in fact no discounts upon bonds and securities covering the period from 1896 to February 20, 1906?

A. I found none.

Q. Did you consider in connection with your report Exhibit 23 the amount of cash received by the company from the sale of stock?

A. No, sir.

Q. Did you consider it at all in connection with your report Exhibit 23?

A. No, sir.

Q. And in your audit of the books of the company, did you inform yourself with respect thereto in any manner?

A. Only as the amount of capital stock appears on the balance sheet.

Q. You accepted that as being the amount the company had received from the sale of stock?

A. That does not necessarily follow; I paid no attention to that.

Q. I want to know what you did?

A. I paid no attention to the amount of cash which the company received from the sale of its stock. The existence of the fact that a large amount of stock appears on the balance sheet does not indicate that a corresponding amount of cash was received.

2007 My audit was more particular to determine the cost of the property over a period of years, the cost of operating that property and the income from the company's operations, and a statement of its assets and liabilities at the close of the calendar year 1910. I did not analyze the cash items to show the amount received from the sale of stock.

Q. Now, Mr. Hagenah, in your report Exhibit 23, if I get your theory correctly, you have charged the consumers in arriving at the value of the investment eight per cent on practically all of these items that you include as representing the book cost of the property.

A. I do not do that.

Q. You didn't?

A. No, sir.

Q. In the one item \$1,928,016.65 there is included the sum of \$33,950 representing discounts on securities?

A. Let me understand you now. You say in referring to my table the table you have in mind is this exhibit of the construction cost?

Q. Yes.

A. I thought you referred to the investment value. I do allow eight per cent on my total shown in the table of my cost analysis.

Q. So that it is your notion that notwithstanding now that you have said the property according to your theory is one hundred per cent in all respects, that its stock is paying eight per cent dividend, that all extensions that are made and additional capital necessary therefor is earning eight per cent, that yet yet it would be necessary in financing the extensions, etc., and the issuing of bonds, to sell them at a discount, do you?

A. I cannot answer your question yes or no. You in-
2008 cluded in it several elements more or less inconsistent.

Q. Let me ask you this: The stock in the company which is paying eight per cent dividends annually and where it issues a five per cent bond, would you think that bond would have to go at a discount in order to find a market?

A. The rate of dividend paid by a company in itself means nothing. You must take into consideration the amount of capital stock.

Q. I know, but what you have done in this case, you have property representing the full value of the stock and the property which you have bonded or mortgaged is as good as new, worth one hundred per cent on the market, now you issue bonds to the amount of \$400,000 on property of that character, that is worth \$3,000,000 according to your statement, do you think it would be necessary in order to find a purchaser for those bonds to discount when they were earning five per cent?

A. I do not know what elements would be taken into consideration. I know the purchaser would analyze very carefully the financial market, and all the elements affecting value, the bond market, which market is almost as sensitive as a barometer—

Q. You have assumed that they would have to be discounted in making up your valuation on the investment?

A. I made no assumption; I took the facts from the books.

Q. Suppose that instead of paying five they were paying six, would that make any difference?

A. Yes, sir.

Q. What difference would it make?

A. You would get into one of two difficulties. The first one is that you have a higher interest obligation to pay; your rate of return allowed in a rate case upon your investment, must be so much larger to take into consideration the higher interest rate; 2009 and the second difficulty which you would encounter would be, if I may refer to the ruling of the court in the case of Steinerson vs. The Great Northern Railroad Company where they eliminated the excess interest on the bond issue where the rate was precisely six per cent, as allowed by the court, you are confronted by an actual condition.

Q. You have assumed eight per cent as a reasonable return and you have guaranteed that for the purpose of this report?

A. I have not guaranteed it. I have assumed an eight per cent rate of return the capital under these particular conditions was entitled to.

Q. Haven't you charged the consumers of this community with this eight per cent return upon this property by capitalizing the losses?

A. Upon the entire investment computed in this way.

Q. Computed in this way, by that you mean you have capitalized all the earlier losses of the company?

A. I have capitalized the losses and credited with profits.

Q. You have included the working capital and that is earning interest?

A. Yes, sir—pardon me, in what sense?

Q. It is included in one of those columns, is it not, where you speak of extensions and improvements?

A. I mean it is entitled to the allowance of the same eight per cent the capital invested in physical property is—physical property plus capital represented my table.

Q. If there has been any mismanagement in the history of this

concern going back to 1886, you have capitalized that along with the other matters?

A. If there has been any, I don't know of any; if there been any I would have made an adjustment accordingly.

Q. You are assuming for the purpose of this report that there was no mismanagement?

A. I am dealing with the fact as shown by the books.

Q. Of course the books don't reveal any mismanagement, and yet you tell this court they were entitled to depreciation and did not charge it off and you have gone over the books and have charged a reasonable amount for depreciation?

A. Exactly, and because they do not charge off any depreciation. They are being penalized by—

Q. I think you said that yesterday; I am calling your attention to that now; if there was any mismanagement, Mr. Hagenah, it is capitalized along with the losses?

A. If there was any mismanagement which I didn't get it would be included in the figures I used, but I found no evidence of it.

Q. You have assumed eight per cent as a reasonable return for the purpose of this report; I wish you would tell the court that being true, and the property being in the state of efficiency you claim for it by reason of your theory, why it is that in selling bonds earning five per cent it would be necessary to figure that you would have to pay at least \$33,950 as discount on a \$400,000 bond issue?

A. The discount on these securities is not of my making. It is a cost the company incurred which it could not avoid at the time it sold those bonds. It was a condition imposed upon the sale of the bonds by the money market and the condition of this property at this particular time and it was a necessary expenditure made in good faith.

Q. Now, that is an assumption on your part that it was all in good faith?

2011 A. I say the transaction was in good faith unless I found evidence to the contrary.

Q. I cannot reconcile your figures, that \$412,000. I understood it that the first issue under date of December 31, 1888, was \$200,000; and on January 1, 1897, \$225,000 were issued to retire \$200,000, and that left \$25,000 and the company in October, 1899, issued \$93,000 and on April 1901, \$58,000 and then in 1902 \$44,000.

A. You are speaking now of the Capital City Gas Company?

Q. Yes; was the issue of 1902 the amount of \$44,000?

A. It was.

Q. Then we have \$225,000; \$73,000; \$58,000; and \$44,000 and that is \$400,000 is it not?

A. Yes, sir; isn't that what I said?

Q. I understood Mr. Douthert to say it was \$412,000.

A. \$412,000 was the issue of the Des Moines Gas Company. You are referring to the Capital City Gas Company.

Q. Can you separate from the table in schedule 1, Exhibit B, the Valley Junction business and property?

A. I cannot.

Q. Do you know how much is included therein?

A. No, sir.

Q. Which represents the property and business in Valley Junction?

A. No, sir; I know it is a very small amount.

Q. The \$1,928,000 includes this high pressure pipe line, does it not to Valley Junction?

A. I don't know of the existence of a high pressure pipe line. I am dealing with the figures on the books.

Q. It includes the real estate owned by the company in Valley Junction?

2012 A. That appears in the ledger.

Q. And it represents the cost of the company as shown by the books in laying mains and establishing their distribution system in Valley Junction?

A. Everything on the company's books which is a legitimate construction cost is in this table.

Q. There is no way by which you can separate those items or tell the Master the percentage of the amount included in Valley Junction?

A. No, sir.

Q. The books, of course, show, do they not, what was paid for the Valley Junction business?

A. An analysis could be made which would show all that.

Q. Do they keep a separate set of books of the Valley Junction business or is it all kept in the books of the Des Moines Gas Company?

A. It is kept in one general set of books.

Q. Isn't the Valley Junction account, construction account, separate from the Des Moines Gas Company?

A. No, sir.

Q. So you could not tell which was Valley Junction and which was property in the city of Des Moines by reference to the books?

A. Not from the analysis of the books; I would have to go into a detailed analysis of the individual authorizations and work orders and trace the disposition of the money and minor items. The total is very small which belongs to Valley Junction.

Q. Now, let us take up Exhibit 26, Mr. Hagenah, and referring to the depreciation, beginning with February 1906 of the Des Moines Gas Company, and I wish you would add the figures there commencing with the item \$3,611. and using the figures to the bottom of the column so that you will get the total figures?

2013 A. The total of the list of six figures, the last six figures showing depreciation at the rate of two per cent on depreciable property is \$166,472.

Q. So that represents the depreciation for the five years?

A. Yes, that represents the estimated depreciation for the five years.

Q. Your estimate of the depreciation for the five years?

A. Yes, sir.

Q. Have you Exhibit 29 before you, Mr. Hagenah?

A. I don't know what exhibit that is.

Q. That is the exhibit of gross revenue and net return applicable to interest and profit for the five years ending December 31, 1910.

A. Yes, sir.

Q. Now, what do you estimate, or what did the books show that was written off for depreciation covering five years?

A. During the ten months ending December 31, 1909, as shown in the fifth column in that table there is a charge and the corresponding credit to property on account of depreciation to the amount of \$264,108.78.

Q. \$264,108.78?

A. \$264,108.78 according to my copy.

Q. So that it exceeds this table, exceeds the amount written off for depreciation as compared with the amount which you estimate in Exhibit 26, by \$97,636.78.

A. That is substantially the difference between \$264,108. and \$166,477.

Q. Well it exceeds the estimate for depreciation as made by you in Exhibit 26 by that amount; isn't that the fact?

2014 A. This particular charge exceeds the amount I estimated for depreciation over those years by substantially the amount which you have given.

Q. Now, you lose in Exhibit 26 as your estimate for the five years this \$166,417 do you not?

A. Yes, sir.

Q. Now, then, in Exhibit 29, covering five years there is a charge off for \$264,108.74?

A. Yes, sir.

Q. And in Exhibit 29, when you come to your final average or the average of profits you use the figures \$117,291.68 and in order to reach that amount it was necessary for you to use the \$264,108.74 in lieu of the figures \$166,472. isn't that correct?

A. With this explanation—

Q. Just answer the question and then you can explain.

A. Yes, but Exhibit 29 is based upon an analysis of five years of the company's books; Exhibit 26 is based upon an analysis of the company's records for 29 years in which I estimate, and my estimate is set off against the actual conditions found on the books.

Q. That is, in 1909, was the first year in which you found any charge had been made for depreciation?

A. Yes, sir.

Q. So that Mr. Hagenah, if you had kept to the text and within the books, you would have had no depreciation at all except this item in 1909?

A. Yes; if I had not used my own estimate and had used the figure on the book, naturally I would not have put that item in there.

2015 Q. What I mean is this: You say when I called your attention to the discrepancy between Exhibit 26 and Exhibit 29, first respecting this depreciation account, your explanation of that now is that one is the actual records taken from the books,

as against one which is an estimate covering a five year period. Now my question to you is, had you in every case kept to the books and not gone outside of the books, and not attempted to substitute some notion you might have with respect to what the books should have shown, you would have no occasion to use depreciation at all in your report prior to the year 1909?

A. That is true, if I had been guided solely by what the company did in that respect, I would have had no other depreciation figure to use except \$264,108.

Q. Now you would justify the manner of arriving at the general average profit shown in Exhibit 29 by the fact that you came to this charge in 1909 of this \$264,000 and that you were bound by that, whether it was reasonable or unreasonable?

A. That is the statement of the company's books, that is all.

Q. Suppose it had been \$500,000?

A. I would have shown it.

Q. You would have used it just the same?

A. As an auditor I would only show figures on the company's books.

Q. If you were going to tell the Master what the average profits were in the company during the five years, you would be willing to do that, notwithstanding the charge amounted to \$500,000?

A. I would say to the court, as I would say now, this is a true record of what the company's books show to have been the different profits during the period in question.

Q. You have also undertaken by this report, Exhibit 29, to show to the Master that the average profits of the company for the five years referred to in this report were \$117,291.68?

A. Yes, sir; I show that, and I hope I can convey to the 2016 court the impression that the condition in which the company's books now are and the manner in which it has been handling depreciation is an incorrect method; and in table 26 I want to show to the court what the actual condition of this property is and not what they thought it was.

Q. Mr. Hagenah, if you wanted to do that and wanted to be eminently fair with the court, why didn't you make another table showing what the average profit would be for those five years based upon your estimate of depreciation for the five years?

A. Because I could not figure profit without considering the element of depreciation and the cost of the plant. If this is the only item charged off for depreciation, it does not indicate in the slightest degree that depreciation has not taken place during the company's life to a greater extent than this one charge; it reflects merely that the amount charged off represents the best effort on the part of the company under its financial condition to recognize depreciation.

Q. I think you haven't understood the question. (Question repeated.)

A. Again I will say, if I wanted to show to the court that the actual profits as determined by me were as opposed to the charge on the books I would have to go back further and recognize the fact that nothing had been charged off for depreciation during the earlier

years and there was an accrued loss of a large proportion due to the fact that the plant had not been properly carried on with respect to the element of depreciation.

Q. That accrued loss you speak of would go into the capital account?

A. Yes, I think it should; I believe that is the proper way to do it.

Q. That is the way you figured it in this report all along?

A. Yes, sir; I think that is the proper way of handling it.

Q. What I want to know, Mr. Hagenah,—you wanted to
2017 illustrate did you not, by Exhibit 28, that the average annual profits of the Des Moines Gas Company for the five years preceding December 31, 1910, were the sum of \$117,291.68. is that right?

A. Yes, sir; that is what the books show.

Q. That is what you wanted to illustrate by the books and your analysis?

A. I wanted to show to the court what the books show.

Q. And in doing that, instead of adopting the estimate which you had made in Exhibit 26, covering the five year period, you took this charge of \$264,000 to represent depreciation, rather than the estimate which you had made in the table of Exhibit 26, isn't that true?

A. In making my analysis of the company's books I used the book figure. I wanted to show to the court that the books did not properly reveal the proper financial condition of the company for the purpose of this suit; therefore I made Exhibit 26.

Q. Then, Mr. Hagenah, the \$117,291.68 was not in your judgment and according to the table in Exhibit 26 the correct average profits of the company for the five years preceding December 31, 1910?

A. I make no explanation in this table as to what my judgment is; this shows the condition of the company's books.

Last question repeated.

A. I cannot answer that by yes or no.

Q. Now, for the benefit of the Master and counsel I wish you would take this Exhibit 29 and instead of using this \$264,000 representing depreciation, use the amount which you estimated for the five year period in Exhibit 26, and tell the Master upon that theory, what the average profits of the company would be covering those five years?

2018 A. May I ask a question in regard to that to see if I understand your question properly?

Q. Yes, sir.

A. Do you want me also to take into consideration the accrued loss up to this time?

Q. I want you to do this: I want you to take the depreciation which you have estimated in Exhibit 26 for the five years preceding December 31, 1910, using that as your basis in Exhibit 29 for the purpose of telling the Master what the average annual profits of the company was for the five years referred to?

A. You want a simple mathematical demonstration deducting a smaller figure from a larger for the five years. I can do that.

Q. I simply want it on the record.

A. (Witness calculates.) I have gone over that although I have not rechecked my work, I get an average according to that method of computation of \$134,465.

Q. How did you get at that, Mr. Hagenah?

A. By taking the net return applicable to interest and profits for the year in question, without any allowance for the \$264,108. which the company show- as its depreciation in 1909, and then deducting each year the amount shown in my Exhibit 26 averaging the total of those five numbers I get \$134,465.

Q. So that by adopting your estimate of depreciation for the five years, we have a difference of something like \$17,000 annually?

A. A difference of \$17,000 but you have not recognized the accrued depreciation.

Q. You have recognized that in your estimate in Exhibit 26?

A. My estimate is based over a period of 23 years.

Q. But that would include a depreciation of five years?

A. Yes, computed over a period of 23 years.

2019 Q. That is the accrued depreciation for those five years?

A. When computed over a period of 23.

Q. For the five years?

A. As a part of the 23 years.

Q. That is the way you want to explain that?

A. Exactly.

Q. But it is a fact in order to arrive at your \$117,291.68 representing profits, you had to weigh it down with \$241,000 item which appeared on the books of the company?

A. No, sir.

Q. Instead of the estimate used by you in table 26?

A. I answer your question in the negative.

Q. You did arrive at \$117,291.68 representing profits, by using the amount which the company had charged off on its books for depreciation, instead of using your estimate for the five years as shown in table 26?

A. Exhibit 29 is based upon the actual conditions.

Q. Can't you answer that question by yes or no?

(Question repeated.)

A. Yes.

Q. I wish you would refer to Exhibit 31, if you will?

A. I don't think I have a copy here.

(Is presented with copy.)

Q. Which is the table showing the working capital of the Des Moines Gas Company December 31, 1910? Now if you will go to Exhibit 23, and refer to schedule 1 in the statement of assets and liabilities, shown at page 3 of the report, in schedule 1, Exhibit 23, there is shown in the liabilities bills payable to the amount of \$14,000; in Exhibit 31 in arriving at the total amount of working capital, \$141,769.98. You only deduct accounts payable and make

no reference to the bills payable account, to which I called
2020 your attention; what explanation have you to offer for that?

A. Whether bills payable should be deducted is more or less of an open question; I have not deducted it in this exhibit.

Q. Why do you distinguish between accounts payable and bills payable?

A. Accounts are current obligations in the course of operating the company's business; bills payable represent money borrowed upon notes for a specified time.

Q. Mr. Hagenah, didn't I call your attention a day or two ago to one of these balance sheets of the company for the purpose of having you illustrate to the Master the method by which you arrive at working capital and the computations which you made in that time, did you not include bills payable?

A. I remember we discussed that; I think in that analysis you wanted me to make, I deducted \$14,000, that is my present recollection.

Q. So that in order to have the working capital of the Des Moines Gas Company amount to \$141,769.98 as of December 31, 1910, you were obliged to omit the liability account or bills payable?

A. The working capital I analyzed in two ways. In one case I deducted it and in another case I left it in. It is open to question whether it should be put in or not. In my table computing the investment value I tried to be very conservative; it may be I have gone too far; I have tried to be what you call eminently fair, in arriving at that valuation I deducted \$14,000 making the net working capital \$128,000.

Q. What is your understanding of the term current liability?

A. It includes account- payable and may include bills payable, but you would have to see the bills before you knew. You
2021 can borrow money for a very long time in the form of notes which would in time assume some of the characteristics of bonds.

Q. Oh, yes, if it ran long enough; but ordinary bills payable now—

A. If you will tell me now what you mean by bills payable?

Q. You have said that you audited the books of the company and told the Master, strictly in accordance with the rules adopted by the American Gas Association, or some other association, and that you find on these books as you have set out here, accounts payable and bills payable; I want you to tell the Master just what bills payable are; I don't want you to answer the question by asking me one.

A. I didn't ask you any. In this case the \$14,000 represents money borrowed to tide the company over a period when they needed ready cash; just what that \$14,000 was devoted to I don't know.

Q. You don't know whether it was notes running five years or two years?

A. It represented notes; I don't know the length of time.

Q. Borrowed at a local bank?

A. I don't know that.

Q. Or what rate of interest the notes bore?

A. I don't know.

Q. You don't know where the money was borrowed?

A. No, sir.

Q. It was an obligation of the Des Moines Gas Company?

A. Yes, sir.

Q. You didn't know the payee of the note?

A. No, sir.

Q. You don't know when the notes matured?

A. No.

2022 Q. Do you know whether the notes had been extended, the time of payment had been extended?

A. No, sir; I didn't inquire about that.

Q. And yet, when you came to estimate the working capital you assumed that these \$14,000 are carried under bills payable should not be deducted?

A. I have not deducted them in this table.

Q. You call that current liability, wouldn't you?

A. I can imagine conditions under which the bill would be a *a* current liability. I have seen a good many bills, notes I would without hesitancy call current liabilities.

Q. Is it not fair to assume, Mr. Hagenah, if it was money which the company borrowed temporarily for tiding it over some financial condition, that they had gone to one of the banks of the city, a national bank or state bank, or savings bank, and executed its note and that the banks as a rule, according to the witnesses, some of them that testified here, short loans running sixty to ninety days, not exceeding six months, isn't it fair to assume that the note, considering your explanation of it, the notes were of such character and properly chargeable to the bills payable account and should be deducted from the amount here as shown in working capital?

A. I make no such assumption.

Q. Have you not the right to assume that in the absence of anything to the contrary, and in the absence of any analysis by you of the notes, when executed, when they matured, and all the other facts and circumstances, any prudent business man would inquire and the way you did it in your testimony in this case?

A. I did not make any assumptions; I did not want to assume any condition—

2023 Q. You never assumed anything when it seems to be against the company in this case, isn't that true?

A. It is not.

Q. You have assumed here, for instance, Mr. Hagenah, that this \$285,000 that we have been speaking about so many times, you relied upon information furnished you without a stroke of the pen on the books, and you have assumed it was a fair purchase price for the holder and things of that sort, and you assumed for the purpose of having your average profits for the company, that this \$264,000 was a proper charge to depreciation and all those things, and now when it comes to the question of \$14,000 represented by

notes of the company which you say were given to tide the company over some temporary financial embarrassment, that you cannot assume that should be properly charged into the bills payable account?

A. You have got three distinct elements in that question which I can answer better one at a time.

Q. I am simply calling your attention to the matter and the condition of your testimony so that if you want to explain to the Master why it is under the circumstances that you were not willing to assume that these notes were not properly in the bills payable account, you may tell him?

A. I am not willing to make any assumption in the absence of fact to give me a basis.

Q. Do you want to say now that you have made any assumptions in your entire report or these tables which you have introduced here in respect thereto?

A. Not at all; that is an entirely different matter.

Q. So that you do make assumptions once in a while?

A. Indeed, I do make assumptions; but here is one I don't make.

Q. And that is the case when it affects the company to the 2024 extent of \$14,000?

A. If you will refer to Exhibit 26 I can again show you the working capital I used where it was material to arrive at the present value of the investment for rate making purpose, including the allowance for rate making, in which I gave the public the benefit of every doubt and using \$128,000.

Q. Don't you honestly believe that \$14,000 since your attention has been called to it, as an expert statistician, and a man who wants to be fair to the public, don't you really believe that belongs in bills payable?

A. I have no information upon which I want to base the belief and I want to be fair and do not express any opinion.

Mr. BRENNAN: I think that is all. I want, however, if your honor please, I want Mr. Hagenah to produce for us before he is finally excused the following matters in connection with his report, Exhibit 23, and the various tables which have been introduced in connection therewith, first, I want him to produce the vouchers or statements showing the exact cost of all items entering into the \$285,000 to which we have called his attention; second, a list of all discount on bonds charged into the cost of investment—I guess that has been given us and we will not bother further with that; third, the cost of all land as it appears on the books of the company; fourth, his analysis of all the construction costs of the past five years to show how much overhead was charged in the operating expenses and how much into construction. Copies of all balance sheets since 1900 and the deduction of working capital in each balance sheet. We also want the balance sheet of June 30, 1886, and we want the witness to produce a statement of the discount and sales of 2025 bonds in the year 1910 showing the discount in each sale.

Mr. GUERNSEY: With reference to these matters, we have no objection to the witness doing whatever work the city wants him

to do. We want it distinctly understood so far as we are concerned that it is not done for us, and not something we pay for. These books are now being examined by the city and everything they have asked for here they have had ample facilities for obtaining for themselves. So that we have no objection to their employing Mr. Hagenah to do it, but we distinctly decline ourselves to employ him to do it.

The MASTER: His time as a witness is going on anyhow.

Mr. GUERNSEY: We want distinctly to make the proposition that we are not bound to do this work for the city where we furnish the things with which they can do it themselves.

Mr. BYERS: It is immaterial to us.

The MASTER: If there is going to be any question about it we will have the books brought in.

Mr. GUERNSEY: They have the books.

Mr. BRENNAN: In the nature of things, in view of this witness' testimony in this case—the witness will say the books show this together with his analysis; many things include his analysis and we could not take these books in view of his testimony in this case and analyze his theory for instance of overhead charges. He has introduced this Exhibit 23 and he has supplemented the books by this analysis; if this exhibit is going to be considered in this case, we want it to be considered in the light of the analysis he makes.

The MASTER: I do not understand that he has any over-
2026 head charges in this case.

Mr. GUERNSEY: I would like to have the record show with reference to these vouchers; these are vouchers which have already been offered to the accountants of the city and are now subject to their examination at any time.

Mr. BRENNAN: We want it to appear of record that our accountants have not been furnished the vouchers to which reference has been made.

Mr. GUERNSEY: Mr. Douthirt tells me these are not the vouchers; that there are no vouchers and that Mr. Bemis, when he prepared this memorandum was advised of that fact.

Mr. BEMIS: I supposed they were in Philadelphia.

Mr. BYERS: We will stand on this record; if they are satisfied with it, we are; our request is there.

The MASTER: I do not care to have them produce something they have not got.

Mr. BYERS: They can make their showing if they haven't got it.

The MASTER: You testified there wasn't any vouchers.

The WITNESS: I testified a number of times there were no vouchers covering the disposition of the \$285,000.

The MASTER: You simply found the charge on the books?

The WITNESS: Yes, sir; at the time of the consolidation.

The MASTER: That eliminates that so far as this witness is concerned.

Mr. BRENNAN: We are making this request in the utmost good faith. This testimony shows all this work was first done on requisition on Philadelphia and authorizations were issued and the work

was done under the authorization, and the vouchers are presumably, in some instances at least, sent to the U. G. I. office. Because they were not handed to this witness or did not appear on the books does not support the fact that they are not in existence.

The MASTER: This witness will not be required because he never had them and consequently you cannot require him to produce them.

Mr. BRENNAN: We ask him to produce the cost of all lands as appears on the books of the company.

The MASTER: That means produce the books.

Mr. GUERNSEY: We will produce the books if they wish to have them.

The MASTER: Now, what else?

Mr. BRENNAN: And the analysis of the construction cost of the last five years to show how much overhead was charged into operating expenses.

Mr. GUERNSEY: That is something he has not done. It does not appear on the books. It is a matter of independent work. We are perfectly willing to have the witness do it, but it should be done at their expense and not ours.

The MASTER: I understood all the time there were no overhead charges included. Were there any overhead charges in the books?

The WITNESS: No, sir, I found none.

The MASTER: What next do you want?

Mr. BRENNAN: Copies of the balance sheets since 1900.

Mr. GUERNSEY: Those are all in the books these gentlemen are now examining.

The MASTER: What next?

Mr. BRENNAN: The balance sheet of June 30 of 1886.

The MASTER: That was taken from the ledger I understand, and the witness can be examined as to that. I think it very proper that the ledger should be here.

Mr. BRENNAN: Defendants interpose the further objection to the introduction of Exhibits 23 to 31, both inclusive for the reason that it appears that said exhibits are based upon an analysis made by this witness from memoranda and other matters furnished to him and investigated by him and that the same has not been produced in connection with the request of the defendants.

Mr. GUERNSEY: Do you refer to the requests you made on the record here?

Mr. BRENNAN: Those requests are on the record and a full discussion has been had.

Witness excused.

ARTHUR REYNOLDS, being first duly sworn on part of Complainant, examined in chief by W. L. Read, Esq., testified as follows:

Q. Where do you reside?

A. In this city.

Q. How long have you lived here?

A. Sixteen years.

Q. In what business or occupation are you engaged?

A. Banking.

2029 Q. How long have you been engaged in the banking business?

A. Twenty-five years.

Q. For the past sixteen years in Des Moines?

A. Yes, sir.

Q. And prior to that where?

A. At Panora.

Q. With what bank are you connected?

A. The Des Moines National Bank.

Q. What is the capitalization of that bank?

A. Five hundred thousand dollars.

Q. It is a national bank?

A. Yes, sir.

Q. Doing a general banking business?

A. Yes, sir.

Q. What official relations do you have with the Des Moines National Bank?

A. I am President of the Des Moines National Bank.

Q. Are you in active charge of its affairs?

A. Yes, sir.

Q. And have been during the years you were connected with it?

A. Yes, sir.

Q. Have you acquainted and familiarized yourself with the current rates of interest that are being paid in this vicinity?

A. Yes, sir.

Q. What are the prevailing current rates of interest paid upon first class real estate securities, such as first mortgages on agricultural lands, where the amount of the mortgage does not exceed, say fifty per cent of the value of the land, in this vicinity and locality?

A. I would say six per cent.

2030 Q. What were the rates about the first of January this year?

A. Six per cent approximately.

Q. What do you say as to how long such rates have prevailed?

A. Rates generally on farm mortgages have been six per cent for something over a year; probably a year and a half.

Q. What is and has been the prevailing rate of interest usually required and received upon money invested in the banking business?

A. You mean by that how much has been received as dividends or how much total profit?

Q. Total profit without regard to whether it has been distributed into dividends or not.

Objected to on part of the defendants as wholly incompetent, immaterial and irrelevant.

Q. Available for dividends or surplus?

Same objection as last above made.

A. Of course that profit varies very materially in different institu-

tions and with different investors; but the rate of income on an investment of that kind would probably net somewhere between eight, twelve and fifteen per cent.

Q. Is the banking business regarded as a conservative and safe one in this community by the industrial public?

A. I think so, yes sir.

Q. Where does it rank in that respect?

A. Well, I would say it is one of the foremost business- of the town, a conservative class of business.

Q. I assume that it would require to induce the investment of capital in the banking business something more than the rate that would be paid on first class real estate securities?

A. Yes, sir; I think it would.

Q. And in order to induce investment of capital in the banking business rather than its loaning upon real estate securities,
2031 how much of a net earning available for dividends or surplus would be required?

Objected to on part of defendants as incompetent and irrelevant.

Q. State the minimum, if you please.

Same objection last above made.

A. I would say anywhere from two to four per cent, a minimum probably of four per cent.

Q. Above farm mortgages?

A. Yes, above the rate that would be received upon farm mortgages.

Cross-examination by Mr. BYERS:

Q. What is the prevailing interest rate for money over the counter for short time loans?

A. In Des Moines on lines of credit on considerable amounts of money and on small amounts of money seven and eight per cent.

Q. There are none being made at eight in Des Moines now?

A. O, yes; lots of them; small loans, from \$100 to \$300.

Q. For a few days?

A. No, even for a period of time.

Q. What is the lowest rate that you know of at this time, that you know of loans that have been made over the counter in Des Moines, say beginning with the period of the first of last January down to this time, large or small?

A. The lowest rate we made ourselves is six per cent.

Q. Nothing under that?

A. Nothing under six per cent.

Q. You are advised, however, from information that loans have been made here during that time for much less than six per cent.

2032 A. Well, I know that commercial paper—

Q. I mean over the counter.

A. No, I don't know about that, Mr. Byers.

Q. What is the prevailing rate carried by loans that are based on

income buildings in Des Moines, the income buildings located anywhere within the business district?

A. I don't believe I would be—I don't know that I could tell you the lowest rates. I know of some rates. I don't know whether those are the lowest rates or not. Some of the large buildings here, five per cent, and others a little higher than that.

Q. Some lower?

A. Possibly some lower. I know a few years ago they were made lower; I don't know of any since the first of January.

Q. It is true that farm loans are being made now in Des Moines at five and a half?

A. The companies I am connected with are making at six.

Q. The Bankers Life, for instance, is making loans at five and a half?

A. I am not posted as to their rates.

Q. What is the lowest rate that you know of that commercial paper has been carried in Des Moines say from the first of January?

A. Now, that is really a question—we ourselves do not buy any strictly commercial paper. I don't really know what other banks are doing. I know what rates are quoted in the market.

Q. What are they quoted?

A. There has been a rate quoted, mid-summer, as low as three and a half or four per cent.

Q. The money that you understand was willing to carry those loans, was money from the east or local money?

2033 A. Money from the east very largely, this year.

Q. Money seeking investment here and owned by persons who live in the east?

A. Well, commercial paper at that rate, is largely carried by large banks in eastern cities. Des Moines banks do sometimes buy for temporary use.

Q. What is the usual rate of interest on residence loans in the city do you do any of that kind of business?

A. We do not do of that class of business.

Q. Do you have any information about it?

A. Yes, I have some information.

Q. What is the rate?

A. I would say, the average residence loans, seven per cent.

Q. Do you know what the bonds of local concerns in local concerns sell for on the market, do you have any information about that?

A. Very little information about that; very few bonds are sold here.

Q. Well, the bonds of a commercial institution, a manufacturing institution, that would sell on the market, at say ninety-five, you would consider above the average, wouldn't you?

A. I would think, Mr. Byers, the most of the commercial enterprises here that float money do it on preferred stock rather than bonds; that commands a little higher rate.

Q. Let us take that, what is the rate usually carried by these preferred stock loans?

A. Preferred stocks usually sell in Des Moines at six per cent.

Q. It is your understanding that that is the method adopted by some of the institutions for raising money, rather than through the bond issue or the sale of bonds?

A. Some of them, yes.

Q. You do not happen to have any stock in the Gas Company?

2034 A. No.

Q. I suppose the Des Moines Gas Company is not your customer?

A. Not our customer.

Q. So that you haven't loaned it any money?

A. No, sir.

Q. You don't know what rate it has paid for loans?

A. I never did business with the Des Moines Gas Company.

Redirect examination by Mr. READ:

Q. Referring to the practice of local institutions raising money upon preferred stock, I suppose the instances you refer to, a limited amount of money is thus raised?

A. A very small amount.

Q. If the proposition was to produce the entire capital, would that affect the question of the rate?

A. Very materially, no doubt.

Q. The line of credit such as improvement bonds, drainage bonds, do you know what the rate is?

A. Seven per cent on those bonds; they bear six and are sold at a discount of one.

Recross-examination by Mr. BYERS:

Q. The rate is limited on this?

A. They bear six per cent when they are sold in this market they are usually sold at a one per cent discount.

Q. Now, with the exemption the law has recently made?

A. Of course, most of those are sold as drainage warrants, some of them drainage certificates; those are sold at seven per cent; I had an offer this morning.

2035 Q. Drainage bonds now are being floated in the east at par and at six per cent interest?

A. At a much lower rate than here.

Q. These bonds are exempt from taxation?

A. Yes, sir; they are sold in the east at a less rate than here.

Q. Within the last two months, especially since the change in the law, drainage bonds are floated in the east at quite a premium?

A. I think they are sold at something of a premium.

Excused.

Judge CARR: I think we will have to ask the indulgence of the court. We were uncertain as to the length of time the cross exam-

ination would require, and we have a number of witnesses who will be here at half past one this afternoon.

At this time, 11:40 A. M. an adjournment was taken until 1:30 P. M.

2036

1:30 P. M., THURSDAY, August 10, 1911.

WILLIAM C. HARBACH, being called on the part of the complainants and sworn and examined in chief by Hon. George H. Carr, testified as follows:

Q. Where do you live?

A. Here in Des Moines.

Q. How long have you resided in Des Moines?

A. All my life, 43 years.

Q. What is your age?

A. 43.

Q. What is your business?

A. Furniture business.

Q. And does that include the manufacturing of furniture?

A. It does.

Q. How long have you been engaged in that business here in Des Moines?

A. I myself have been in it 24 years.

Q. How long has been the business *been* established?

A. 55 years.

Q. By whom was it conducted prior to the time you became connected with the business.

A. My father and my uncle.

Q. What official position do you hold in the company?

A. I am secretary and treasurer of the company.

Q. Aside from your business as manufacturer, have you other business connections, are you connected with any of the banks?

A. Yes, sir.

Q. What banks?

2037 A. I am director of the Valley National Bank in this city and director of the Atlas Insurance Company.

Q. Do you know what the expected net rate of return is sufficient to induce men to invest their money in manufacturing business here in Des Moines? You may answer that yes or no?

A. Yes, sir.

Q. What is the net rate of return expected and usually realized upon money invested in the manufacturing business here in Des Moines?

Objected to an *incompetent*, immaterial and the matter inquired about is irrelevant to any issue involved in this controversy.

A. I should say about 15 per cent.

Q. Has that condition continued for a considerable length of time at least as far back as the 1st of January of this year?

Same objection.

A. I think so.

Q. In your business in connection with banks you are familiar are you not with the rates of interest that are usually received here in Des Moines upon high class securities like first mortgage loans on real estate?

A. Yes, sir.

Q. I wish you would explain to the Master why it is that it requires a materially higher rate of return to interest capital and procure its investment in business enterprises like manufacturing enterprises over what can be obtained in loaning money on first class securities.

Objected to as incompetent, the question is based upon an assumption that is not in the record and it is irrelevant to any question involved in this controversy.

2038 A. Money invested in mortgages or similar securities is looked upon as absolutely safe, incurring practically no risk and cutting out largely the element of hazard. Money invested in a manufacturing business is recognized as engaging in far more hazard than even that invested in a retail or wholesale business and the reason for that being that the manufacturer must ever be prepared to meet the changing condition of the times that invention and custom will bring about making it necessary for him to make almost a complete change of front as the times may demand and containing as it always does an element that is more uncertain than that of any other line of business in that the science of cost is far removed from being an exact science. It is not today known and I think most manufacturers are beginning to recognize that. It is not today known what real cost is it is not known to the extent that all people recognize it as possible to charge the amount of its cost, if a man buys goods to sell again he knows what the cost is. If he manufactures them in a sense he never knows.

Cross-examination by Hon. H. W. BYERS:

— Is your business an incorporated one?

A. It is.

Q. Stock held by local people?

A. Yes, sir.

Q. Altogether?

A. Altogether.

Q. And is there any such thing as preferred stock in it?

A. No, sir.

Q. All straight common stock?

A. Yes, sir.

2039 Q. You have been in business here a good many years?

A. Yes, sir.

Q. I suppose in that time and often maybe it has been necessary to have money to use in the business?

A. Yes, sir.

Q. What rate do you have to pay for money here in Des Moines interest?

A. We have paid all the way from five to eight per cent.

Q. Take it in the last year, from the 1st of January on?

A. Six per cent.

Q. And what is the usual rate here at which loans are carried on business property?

A. That will depend on where the business property is, what section of the town it is in.

Q. Any of this income property here on the west side?

A. Some four and a half, five and five and a half per cent. There are a few loans I know of four and a half per cent, one any way.

Q. Is that the lowest you *not* know of?

A. I don't know of any *any* lower than four and a half.

Q. Take the Fleming property?

A. The Fleming property I think has a four and a half loan on it as I understand it.

Q. Are there any other concerns in the same business that you are in here in Des Moines?

A. Yes, sir; one other.

Q. I suppose if you had all of the furniture business in the territory that you serve, all competition in the furniture business was eliminated and returns from your sales after taking out all taxes and all depreciation, all interest charges and all other overhead charges should leave you net six per cent, you would

2040 be pretty well satisfied wouldn't you?

A. No, I would not stay in the business if I had a guarantee of that.

Q. You would not even if you had a guarantee of that?

A. No.

Q. So the whole question depends on the individual's disposition and desire for return?

A. Not entirely.

Q. What is it that people are entirely satisfied with even four and a half per cent on loans on property like the Fleming building?

A. Well no individual is, they are loaning out trust funds which they have taken on a basis of three and a half per cent return and that will make one that is clear profit to them. That comes from insurance companies and associations that are loaning money that does not belong to them. They could not get that loan of an individual or bank that had to make a return on it to stockholders, get it from trust funds?

Q. You can get all the loans from banks right now in Des Moines that you want at six per cent can't you?

A. Yes, short time loans.

Q. If I understand you the whole question is one of hazard as you stated.

A. Yes, there is an element of hazard.

Q. That is what makes the difference in what you think ought to be the return, it is hazard that measures the difference in your judgment between the farm loan and the manufacturing business or some other business. Now isn't that hazard altogether one of management?

A. Well I don't quite catch your point there Mr. Byers.

2041 Mr. BYERS: Well that is all then.

Redirect examination by Hon. GEORGE H. CARR:

Q. The money that is loaned in Des Moines at four and a half per cent you say is trust funds, Do you know whether that is local money or money that comes in from the east seeking investment?

A. Yes, sir.

Q. Which is it?

A. It is money from the east.

Q. You refer to the Fleming loan, how long ago was that placed, do you know? Some years ago was it not?

A. Oh it has been placed four or five years I judge. The Northwestern Mutual Life Of Milwaukee has it.

Recross-examination by Hon. H. W. BYERS:

Q. You said a moment ago that this money was loaned by trust companies and insurance companies and not by individuals. Is it not true that in Des Moines since the 1st day of January commercial paper has been carried at as low as three and a half per cent?

A. Well if it has I have not heard of it. I don't know of anybody that would carry it at that.

Q. Well several bankers have already said so?

A. They may have carried it. If the bankers or any bank has carried paper at that rate I doubt very much if it ever came before the board of directors.

Q. I don't mean banks in Des Moines have made loans at three and a half per cent, that is not what I mean, but that commercial paper of institutions in Des Moines has been taken since the first of last January in considerable blocks at as low as three and a half per cent.

Objected to as being simply a statement of counsel to the witness who has stated that he has no knowledge that any such loans has been made it is therefore manifestly improper.

Q. Don't you know of that having been done?

A. No, at that rate.

Q. What is the lowest rate you do know?

A. Well I have been offered money in our own business three and three quarters and four if I would take certain large blocks 25 to 50 thousand on three to four months' time, I must take a certain amount for a specified time.

Q. How long since such offers have been made to you?

A. Oh within the last—well possibly within the last six months.

Redirect examination by Hon. GEORGE H. CARR:

Q. Was that local funds or outside?

A. No, sir; that is eastern money.

Q. I wish you would tell the court in a general way something of the magnitude of your manufacturing business, I have not asked you about that.

A. Our capital stock is \$200,000 and our annual volume of business varies from \$300,000 to \$400,000 a year.

Witness excused.

2043 C. S. WALKER being called on the part of the complainants and sworn and examined in chief by Hon. George H. Carr, testified as follows:

Q. Where do you live?

A. I live in Des Moines.

Q. How long have you lived in Des Moines?

A. Almost 21 years.

Q. What is your age?

A. I am 42.

Q. What is your business?

A. I am engaged in the manufacture of vehicles.

Q. With what particular company are you associated?

A. The Kratzer Carriage Co.

Q. What is your position in that company?

A. I am the president of the company.

Q. Will you please give the court some idea of the magnitude of your business?

A. We are capitalized for \$250,000 employing about 100 people and have a volume of business ranging variously from \$350,000 to \$450,000 per annum.

Q. How long has that company been in operation here in Des Moines?

A. About twenty and one half years.

Q. How long have you been connected with it?

A. Since its beginning.

Q. Do you know what expected net rate of return is sufficient to induce men to invest their money in manufacturing business here in Des Moines. That question you may answer yes or no as to whether you know?

A. Generally speaking, yes I think I could say.

2044 Q. What is the net rate of return expected and usually realized upon money invested in the manufacturing business here in Des Moines?

Objected to as incompetent and not relevant to any issue that is involved in this case, immaterial.

A. The returns on industrials in Des Moines would range from 15 to 20 per cent.

Defendant moves to strike the answer out as incompetent and not responsive.

Q. And how long has that condition existed?

A. I should say that condition had existed for probably ten years, possibly longer.

Cross-examination by Hon. H. W. BYERS:

- Q. You mean net returns 15 to 20 per cent?
- A. Yes, sir.
- Q. Isn't it a little strange to you if that is the case that we don't have a great many more manufacturing institutions in Des Moines?
- A. Not particularly so no sir.
- Q. Did the Packing house make 15 or 20 per cent net on its business in Des Moines?
- A. I could not answer that question.
- Q. Your factory has been in operation 20 years?
- A. Yes, sir.
- Q. What was it capitalized for when it began?
- A. In the beginning capitalized at \$30,000.
- Q. And would that be the assets of the corporation at that time?
- 2045 A. That was the asse^ys of the company at that time.
- Q. What do you say it is now?
- A. \$250,000.
- Q. That is all paid up?
- A. Yes, sir.
- Q. It has been all accumulated in these years here in Des Moines?
- A. Practically, yes.
- Q. A very profitable business?
- A. We regard it so.
- Q. I suppose in that time you have had occasion to carry loans, that is use money?
- A. Yes, sir.
- Q. What have you been able to get money over the counter from the banks of Des Moines say during the last year and since the 1st of last January?
- A. Well over the counter the ruling rate has been five and a half or six per cent I think.
- Q. Did your corporation have occasion at any time to bond the concern?
- A. Never have.
- Q. Or issue anything like preferred stock?
- A. No, sir.
- Q. All been common stock?
- A. Yes, sir.
- Q. I suppose it is all owned by local parties?
- A. Yes, I think it is all loaned by local parties.
- Q. The stock, has not been sold on the market and is not on the market now?
- A. No, sir.
- Q. And have you had occasion during that time to carry
- 2046 any loans on real estate or anything of that kind?
- A. Never have no sir.
- Q. Are you informed as to the prevailing rates for real estate loans in Des Moines?
- A. Only in a general way.

Q. And what rate in a general way do you understand is charged on what you would call first class real estate loans in Des Moines?

A. Well I should say from four and a half to five per cent.

Q. Now one thing further, Mr. Walker, do you mean when you say from 15 to 20 per cent, do you mean the net over and above taxes interest and all overhead charges or operating expenses?

A. Yes, sir.

Q. What you mean is net return?

A. Yes, sir.

Q. On what?

A. On the capitalization.

Q. What do you mean, all the money actually used in the business?

A. Well as I would term capitalization I should mean capital and surplus in the business.

Q. Of course you don't use the surplus in the business, that is your surplus I suppose is divided up among the stockholders?

A. No, sir; surplus as I understand surplus is undivided profits and is kept in the business.

Q. Then you mean whatever money goes into the business in the shape of capital whether taken from surplus or whatever it may be?

A. Yes, sir.

Q. As I understand you your institution after 20 years of operation in Des Moines now represents an actual capitalization of 2047 \$250,000.

A. Yes, sir.

Q. And that money is used in the operation of the business?

A. Yes, sir.

Q. And your idea is that you ought to have 15 to 20 per cent of that amount over and above every possible charge?

A. Your question now is an individual one I take it to our own business?

Q. Yes.

A. Your previous questions were general?

Q. That is right.

A. In our case I should think we would be entitled to a new return of 15 per cent.

Q. Make it more general, applying it to industries generally of the city and it is your idea that in order to attract capital—that is the way the question was put to you—it is necessary that there be a return of from 15 to 20 per cent on the money actually used in the business, is that your idea?

A. Yes, to attract capital or to sell stock in industrials it would be necessary I think to show an earning of 15 to 20 per cent to make it attractive.

Q. You think that is about the rate that is being earned in Des Moines by manufacturing institutions here generally?

A. I think that it would average that, yes?

Q. Just another question or two. You covered quite an extensive territory I suppose with your business, that it includes not only the city of Des Moines but quite a considerable territory outside of the city?

A. We have covered a good part of six states.

2048 Q. Now if you had a monopoly on the business in the territory you serve, that is if you have the business exclusive so that you furnish that entire territory with the goods that they needed in your line and could have that sort of a situation ahead of you for a good many years would you still think that it would be necessary to show an earning of 15 to 20 per cent in order to attract capital?

A. The question is so utterly impossible from our standpoint that it is hardly answerable.

Q. I know it is from your standpoint, but it is not from all kinds of manufacturing institutions and I just wondered how far you considered now the question of competition and the hazards, of course that must go with competition, the danger of your business being cut into more next year than it was last and all that sort of thing and I wondered how much consideration you gave this.

A. I presume if we could name the prices we would make more than we do if we could — name the prices.

Q. And it would take more to attract capital, you don't mean that?

A. No, I don't think so. Capital would probably be attracted at a much lower rate than that because of the monopoly.

Q. Of course where there is no regulation or control with respect to returns every business man and every owner of a factory then fixes his own return and makes it suit his peculiar notion about it?

A. Yes, so far as he can.

Q. Now you were on a committee that made some investigation in this packing plant down here were you not?

A. If you refer to the Greater Des Moines Committee, yes.

Q. You found that in that case the trouble with that concern was competition largely didn't you?

2049 A. No, I don't think so.

Q. Wasn't it the final decision of the committee that if it could have had the territory surrounding Des Moines that properly belonged to it and had a monopoly on it that it could have operated here and made considerable money at even a much lower rate than 15 or 20 per cent?

A. There is no question as to that, but I think the finding generally speaking was that they had attempted to cover too much territory, they didn't localize enough.

Q. They I suppose could not control prices there in any respect?

A. Prices on that commodity are probably made for them rather than by them.

Q. Now that is not true of your commodity is it?

A. To a certain extent it is. We have very strong competition and we must make prices that goods can be sold at to meet such competition, but we make our own prices.

Q. I suppose it is true as to a great part of your products and the Kratz buggy or wagon or whatever you make has its own customers and to some extent you have your own territory?

A. Yes, and they have their own value.

Q. When you see 15 to 20 per cent return to attract capital you

mean in a class of business such as this and other business of that nature in Des Moines where all of these hazards are present like competition and chance of loss of crops in the state and the hundred and one other things that might affect the prosperity of the factory or plant?

A. Yes, sir.

Redirect examination by Hon. GEORGE H. CARR:

2050 Q. You have been asked about the advantages of a monopoly in a product which you were manufacturing. Suppose that the consumer instead of the manufacturer fixed the price at which the product was to be sold, would the monopoly be of much value then.

Objected to as incompetent and irrelevant.

Q. If some one else fixed the price the results would be *the* quite questionable.

Q. Especially if it was the man who was the consumer.

A. Yes, sir.

Recross-examination by Hon. H. W. BYERS:

Q. I don't believe you want to be left in that shape. That would depend altogether wouldn't it on what prices are fixed.

A. It certainly would.

Q. Now if the price *was* fixed was a reasonable price for the service and the business had a reasonable guarantee of permanency that would make a wonderful difference wouldn't it in the way of attracting capital?

A. The proposition would have many sides, many phases. If course if there could be arrived at a fair price it would be a very attractive proposition.

Q. And that would be altogether a most attractive kind of business for a man to put his money in wouldn't it?

A. It would be very nice I should think.

Redirect examination by Hon. GEORGE H. CARR:

2051 Q. As to whether the price was reasonable or not, would depend of course a good deal on the point of view of the man who considered it reasonable wouldn't it, Mr. Waler?

A. I presume the maker or manufacturer of the article and the man who is buying that article would always have a difference of opinion as to what was reasonable.

Q. Of course your answer was based on the assumption that it was a reasonable price from the standpoint of the manufacturer?

A. Yes, sir.

Q. And did you also take into consideration the assumption that seemed to be involved in the question that there would be a guarantee of that price for some time in the future? That is that the reasonable price that General Byers assumed in his question would continue on for some time in the future, you assumed that also?

A. Well, as I stated there are so many phases to that that the effect of a certain price would have one bearing and if the price was not continued beyond a certain contract period it would have altogether a different effect.

Q. In other words if the price were subject to change at any time by the consumer it would be an element of hazard wouldn't it?

A. I should think so, yes.

Witness excused.

2052 J. E. McDONNELL, being called on the part of the complainant and sworn and examined in chief by Hon. George H. Carr, testified as follows:

Q. Where do you live?

A. Des Moines.

Q. How long have you lived in Des Moines?

A. 44 years.

Q. Is that your age?

A. That is my age.

Q. In what business are you engaged?

A. In iron manufacturing.

Q. And what particular line of manufacturing?

A. Manufacturing boilers, tanks and apparatus of that class.

Q. What is the name of the institution with which you are connected?

A. It is now the McDonnell Boiler & Iron Works.

Q. How long has that business been in existence?

A. The business has been in existence for fifty years.

Q. Here in Des Moines?

A. Yes, sir.

Q. By whom was it conducted before you became connected with it?

A. My father.

Q. It was started by your father was it?

A. Yes, sir.

Q. What is your connection with the business?

A. Secretary and manager.

Q. Is your father still connected with the business?

A. Yes, sir.

Q. In what position?

2053 —. President.

Q. Can you give the court some idea of the magnitude of the business?

A. In volume?

Q. Yes, capitalization and in volume.

A. Our capitalization is now \$100,000 and volume of our business will run from \$150,000 to \$200,000 a year.

Q. Do you know what expected net rate of return is sufficient to induce men to invest their money in the manufacturing business here in Des Moines, answer that by yes or no.

A. Well there don't seem to be any particular amount.

Q. The question is whether you know what expected net rate of return is sufficient to induce capital to invest in the manufacturing business generally speaking?

A. Not less than 15 per cent.

Q. I first ask you if you know, you answer that in the affirmative that you do know?

Mr. BYERS: Of course I want the regular objection in between the question and answer.

Q. The question now is for the purpose of qualifying you and you are to answer that yes or no?

A. Yes, sir.

Q. Now what is the net rate of return expected and usually realized upon money invested in a manufacturing business here in Des Moines.

Objected to as incompetent, irrelevant to any issue involved in this case and no proper foundation laid for the testimony.

A. It is all the way from 15 to 25 per cent.

Q. How long has that condition continued here in Des Moines?

2054 A. Well ever since I can remember, twenty-five or twenty-six years.

Cross-examination by Hon. H. W. BYERS:

Q. Did you notice the form of the judge's question, he asked you if you knew what rate of return was expected by persons—he didn't say by persons—and usually received in Des Moines in manufacturing industries. Now do you wish the court to understand that you know what investors, people who are about to invest money or expect to invest money, what they want or what they expect to receive?

A. Yes, I would like to divide that answer in this way that they expect all the way from 15 to 25 per cent.

Q. They expect all they can get—

A. But they don't often receive it.

Q. They expect all they can get don't they?

A. Well, it is more than an expectancy, it is almost demanded from a man that puts his money in manufacturing in Des Moines.

Q. Well I say they expect to get all they can. Now if I understand there is a party right now as I understand it in negotiation with the so-called Booster's Committee or Greater Des Moines Committee which ever it may be, about establishing a factory of some kind in Des Moines. You don't pretend to know anything about what they figure they are going to receive if they come here do you?

A. No, I do not. I know the nature of their business.

Q. Well let's take it in your own business for just a minute. Have you ever been fortunate enough in any of your business enterprises to have a monopoly upon the kind of business you were doing?

2055 A. Yes, sir.

Q. So that there was no competition of any kind?

A. Yes, sir.

Q. And so that you knew at the end of each year that your business for the next year was going to be larger even than it was in the past year?

A. For a short time only yes.

Q. Now in a business of that kind would that fact make any difference in the amount that you would expect to receive?

A. Well it would help to compensate us for a lot of things we didn't receive that we expected to receive.

Q. Some men put their money in farm mortgages, some put their money in bonds and stocks and other men put their money in factories.

A. Yes, sir.

Q. Some men put it in factories that produce boilers and pipe and that class of goods and other men invest their money in gas property and others in oil. Now would it make any difference at all in your estimate of the rate of return what particular kind of business it was?

A. Yes, a whole lot.

Q. Make all the difference in the world wouldn't it?

A. Yes, sir.

Q. In other words, if your firm now—I don't want you to get the opinion for a minute I am making any objection to either the amount you say you are getting or ought to get nor the kind of business you are in—but take your own firm for instance if you knew, if you could go out of this room convinced that beginning from this date you could increase your business a fixed per cent every
2056 year, would that make a vast difference with you upon the question of the amount that would satisfy you as a return?

A. If I knew I was going to get a fixed price for the produce for a certain number of years and there was no interference with it would simply mean that I would have to make provision as a manufacturer to install a plant that would produce the product and at a price where I could make a profit that was sufficient to pay for it.

Q. Now let me come back to the other question as I said a moment ago some men put their money in mortgages and some in government bonds.

A. Yes, sir.

Q. As I said, much of this is new and interesting to me because the money end of it is rather a new thing to me, if I understand these things the risks that control largely the different persons as to where they put their money is the difference in the hazards and dangers that surround the investment.

A. Yes, sir.

Q. Now then if a manufacturer was producing a particular product if he had a monopoly upon the business, that is if he was permitted to furnish all that was needed in the territory, and no interference in the way of competition and his sales were going to increase every year instead of diminish as the population grew his sales would grow because he has a monopoly, now in a case of that kind aside from the question of management wouldn't his return be just as certain and just as safe as the loan?

A. No.

Q. Why?

A. Because so many conditions surround it.

2057 Q. Aside from the question of management it would be just as safe?

A. There are other conditions that cause a manufacturer to carry a big loss, a big indebtedness outside of management, other conditions in the growth of its business.

Q. I told you that is just as sure as death and taxes that his business is going to grow?

A. It all costs money to operate it.

Q. I mean over and above, you pay operating expenses of course costs money to operate it, costs some money for the man who invests his money even in mortgages, somebody has got to look after the business?

A. Well that is pretty safe.

Q. Let's take it in another way. You have had to have some money in your business?

A. Yes, sir.

Q. And at what rate have you been getting that?

A. From four and a half per cent on right short thirty to ninety days, six per cent to seven per cent.

Q. Of course these loans were for use in the business, that is the money was to be used in the business?

A. Yes, sir.

Q. And of course the person who loaned the money was putting that money into your business just as you put your own and was satisfied with six per cent interest on it?

A. Well he was not putting it in without something to guarantee he was going to get it back.

Q. That was the success of your business was the guarantee wasn't it?

A. Well it was an individual outside of the business too.

2058 Q. I don't know how that could be, is your concern an incorporated concern?

A. Yes, sir.

Q. Well then it has nothing outside of the business?

A. Got the individuals connected with it.

Q. But they would not be liable, isn't it your opinion, the individuals were not borrowing the money. Well let's not discuss that. You say you get money from six to seven per cent?

A. From four and a half to seven.

Q. Was there last January and up to this time, what was the rate over the counter?

A. I think six per cent.

Q. For large or small loan?

A. Well I think that was the current rate that was published by the banks.

Q. About six per cent?

A. About six per cent.

Q. Do you know what the usual real estate loans are in Des Moines?

A. I have borrowed money as low as four and a half per cent on real estate.

Witness excused.

2059 E. S. Root being called on the part of the complainant and sworn and examined in chief by Hon. George H. Carr, testified as follows:

Q. Where do you live?

A. In Des Moines.

Q. How long have you lived in Des Moines?

A. A little over nine years.

Q. What is your business?

A. Manufacturing caskets, ambulances and hearses.

Q. With what institution are you connected?

A. Des Moines Casket Company.

Q. How long has the Des Moines Casket Company been in existence and in business here in Des Moines?

A. About ten years.

Q. Can you give the Master some idea of the magnitude of your business?

A. We are capitalized for \$300,000 and \$220,000 and something paid in, a little over \$220,000 paid in.

Q. About what in the annual volume of business?

A. For our Des Moines plant alone from \$200,000 to \$250,000 per year, that is for Des Moines.

Q. What is your connection, that is what is your official position in the company?

A. Treasurer.

Q. How long have you been treasurer of the Des Moines Casket Company?

A. Nine years in November.

Q. Do you know what expected net rate of return is sufficient to induce men to invest their money in the manufacturing business here in Des Moines, you may answer that by yes or no.

A. Yes, sir.

Q. What is the net return expected and usually realized upon money invested in the manufacturing business here in Des Moines?

A. From 12 to 15 per cent.

Q. Has that condition continued for a considerable period of time, at least as far back as the first of January of this year?

A. Yes, sir.

Cross-examination by Hon. H. W. BYERS:

Q. Your business is about the end of the road?

A. About the limit.

Q. That is about the last place any of us have to go to do business. You say it is capitalized for \$300,000?

A. Yes, sir.

Q. Was it organized originally in Des Moines?

A. Yes, sir.

Q. By local people?

A. Yes, sir.

Q. And the stock held by local people?

A. I think all of it.

Q. And that has been true ever since its organization?

A. No. We have associate houses in different places and some of the stock is held by individuals at these different places.

Q. The parent concern is here?

A. Yes, sir.

Q. Has been here all the time?

2061 A. Yes, sir.

Q. Later on as the company prospered you opened up what you term branch houses?

A. Yes, sir.

Q. And in these branch houses the local people in these places have taken some stock?

A. Yes, sir.

Q. And business has been prosperous?

A. Fairly.

Q. Do you have the field to yourselves here?

A. As far as manufacturing is concerned, yes.

Q. And have had it all the time?

A. Yes, sir.

Q. You have interested yourself in the business?

A. Yes, sir.

Q. I suppose you have not concerned yourself about buying and selling stock in any other industry?

A. No, sir.

Q. And are not informed as to either the desirability or the value of the stock in other concerns except your own?

A. Only in a general way.

Q. You used some money in your business.

A. Yes, sir.

Q. What were you capitalized at in the start?

A. I think it was \$50,000 I am not sure about that. But I think it was \$50,000 originally.

Q. The company started pretty close to the ground if I may use the term?

A. Yes, sir.

Q. And has prospered nicely and is now in good shape, it is growing?

2062 A. The company has grown, yes.

Q. In that business the rate of return you say has been what?

A. I have not said.

Q. I thought you did tell Judge Carr.

Judge CARR: I didn't inquire what the rate of return of his business was because I didn't think it was proper.

Q. Did you undertake to say what was the usual and general rate of return to manufacturers in Des Moines?

A. I did not.

Q. Do you undertake to say that to the Master?

A. Yes, sir.

Q. Do you now want to say to the Master that you know what the return generally has been to manufacturers in Des Moines outside of your own business?

A. Yes, sir.

Q. And in what class of business, what line of business?

A. In any class.

Q. In every class?

A. In any class of business. The question he asked me was, what was expected by men who invested for return?

COURT: Do you know what they are actually earning?

A. I do not.

Q. All you done in telling that was what a man expected? I suppose he would be safe to say that men expect all they can get?

A. Usually.

Judge CARR: You know what you are realizing in your own business?

A. Yes, sir.

Witness excused.

2063 E. P. WALTER being recalled on the part of the complainant and examined in chief by Hon. George H. Carr, testified as follows:

Q. When you were on the stand earlier in the case the Master I think it was asked you to prepare a schedule or a table showing the mains laid each year in the distribution system of the complainant company, showing the size of the mains and the number of feet laid each year. Have you prepared such a schedule or table?

A. I have such a table. I did not prepare it myself.

Q. Is Exhibit No. 37 the table to which you refer?

A. Yes, sir.

Q. You have said you did not prepare this table. I wish you would explain to the Master how you obtained it.

A. When I started to prepare this table from the records in the gas company office I found that they had a table which I understand had been made up in Philadelphia at some previous time showing the sizes of the gas mains and the number of feet laid by size in the various years beginning with 1888.

Q. When did you find that table you speak of?

A. After I had been requested to make up such a table.

Q. In going through the records you dug it up, found it?

A. Yes, I found they had this record in the office.

Q. Had you any knowledge of that until the time you made search for it after you had been requested?

A. No, sir; I did not know that a table had been prepared before that.

Q. Now you may go on with the answer.

A. I had a copy of this table made and from the original records in the gas company I checked up this copy and I found it to be substantially correct. There were a few instances

where I did find a very slight difference, they made practically no difference in the result. For instance in the year 1892 in 16 inch pipe according to this record there were 3015 feet of pipe laid, according to the original record I found it was 3041 feet. I found some slight errors in there which made no difference and were not always an error because I could not tell in all cases as these figures on the original record had been copied and the copies were blurred to a small extent.

Q. You mean by that you could not make sure whether the original record was correct or whether this copy was correct.

A. Yes, sir.

Q. Because of the inability to read the original record.

A. Yes, the original record was indistinct and I could not tell in all cases what the original figure was, I took what I thought it was, but I may have been wrong.

Q. You have spoken of one instance, were there others?

A. Yes, sir. In the same year 1892 under six inch pipe on this record it shows 3026 feet as being laid. In the original records I find that to be 4986 feet. In the year 1893 on this record under six inch pipe it shows 1915 feet as being laid and I find no report in 1893 of any six inch pipe being laid; but the sum of 1915 and 3026 is practically the same as what I find as being laid in 1892 or 4986.

Q. Did you find any other differences between the two records?

A. In 1896 this record shows 351 feet of 2½ inch pipe being abandoned. I could not find a record of that. It also shows 1950 feet of three inch pipe being abandoned. I found a record 2065 of 950, but I could not find the 1,000. It also shows 351 feet of six inch as being abandoned, but I did not find that record.

Q. Now any other discrepancy?

A. Yes, in 1902 I find quite a little difference, but as I said before the original records for that year are very indistinct and I could not make these figures out in all cases accurately. The record in this report shows 24,461 feet of four inch pipe. I found on the records 26,247 feet. Six inch pipe this record shows 7,520 and I found 7,232. Eight inch pipe this record shows 6,514 and I found 5,761. Ten inch pipe this record shows 4,733 feet and I found 4,578. The twelve inch pipe is correct and the 16 inch pipe is correct. In the totals for January 1, 1902, on this record it shows 51,062 feet being laid which I find from my figures there is 51,652 feet making this record practically 600 feet less than what I find on the original records, but as I said the copies of these records in some cases are so indistinct that I am not sure I am actually correct here. I think that is all the difference I found. The rest of the years checked out exactly.

Q. In your total figure on this table of miles of main I notice 185.593, that differs from the figure does it not as to the inventory as to the number of miles of main?

A. Yes, it does.

Q. Now will you explain that difference?

A. This is the number of miles of mains in use by the company

January 1, 1911. In the inventory I think that is 183.83 miles and that is the number of miles of main in use November 1st, 1910.

Q. As of the time when the inventory was taken.

2066 A. As of the time when the inventory was taken.

Q. The difference is the additions up to January 1st.

A. This difference is the amount of mains laid in November and December, 1910.

Cross-examination by R. O. BRENNAN, Esq.:

Q. This Exhibit 37 includes all the mains in the distribution system of the Des Moines Gas Co.?

A. Yes, sir.

Q. Does that include Valley Junction?

A. Excluding Valley Junction.

Q. Including the high pressure pipe line?

A. Including the high pressure pipe line within the city of Des Moines.

Q. How many feet of high pressure pipe line is there, do you know?

A. No, sir; I don't remember.

Q. That is not indicated on this exhibit?

A. That is not indicated, no sir.

Q. The company has I presume an inventory of the Valley Junction property?

A. Yes, sir.

Q. Showing services and distribution system out there?

A. Yes, sir.

Q. Now if I understand this exhibit you start out with January 1st, 1889 and this indicates that at that time there was in existence 22.86 miles of mains.

A. January 1, 1888.

2067 Q. You start January 1, 1889 with a total and say there was laid in the year 1888.

A. Yes, sir. The first line also gives the number of feet in use January 1, 1888, the second is the number of feet laid in 1888 and the last is the number of feet in use January 1, 1889.

Q. Then in miles, you reduce the number of feet to miles?

A. Yes, sir.

Q. That is indicated at the bottom of each year?

A. Yes, sir.

Q. So that there was then on the 1st day of January 1888 120,704 feet of main in the distribution system.

A. Yes, sir.

Q. Reduced to miles 22.86.

A. Yes, sir.

Q. During that year was laid 3,685 feet or .69 of a mile?

A. Yes, sir.

Q. Added to the total the preceding year made 23.55 miles in existence at that time.

A. Yes, sir.

Q. You have shown in this table the number of miles, shown

here the number of feet of mains taken up or which were abandoned?

A. Yes, sir.

Q. And have you deducted those from the grand total shown in the report?

A. These are in all cases deducted. Deducted the year in which main was abandoned or taken up.

Q. You say that this copy was furnished you or data from this? this was made up from the office of the United Gas Improvement Company?

A. I found the copy in the office of the Des Moines Gas Company.

A. I understand the original copy was made up in Philadelphia.

2068 Q. While you found these discrepancies this is substantially correct so far as the records in the gas company's office is concerned?

A. Yes, sir.

Q. Did the company have or was it called to your attention an inventory such as you have produced here or list showing the distribution system in Valley Junction?

A. I don't think that there is a list in this same shape, I am not sure.

Q. But they have something showing the system out there?

A. The number of miles of main in Valley Junction by size.

Q. And when laid?

A. Yes, sir.

Q. Do you remember the size of the high pressure main?

A. Eight inch across the river and six inch from there out to Valley Junction.

Court: Where does it cross the river?

A. Opposite the gas works.

Court: Goes under the river?

A. Yes, sir.

Q. I notice in the year 1906 this list shows there was laid during that year 17,618 feet of six inch pipe. Do you know whether that has reference to this high pressure main in West Des Moines?

A. January 1, 1906, 17,618 feet is the number of feet of six inch pipe laid in the year 1905. I am not sure whether that main was laid in the year 1905 or the year 1906. If it was laid in the year 1905 it would be included in that 17,618 feet. I am not sure whether it was laid in 1905 or 1906.

2069 Q. The pipe laid in 1906 appearing in the table January 1, 1907, shows that there was 40,248 feet of six inch pipe laid.

A. Well I would say from that that the chances are that that was laid in 1906 then and not in 1905.

Q. And 8 inch pipe seems to have been laid in that year 6,240.

A. Yes, sir.

Q. You say this high pressure main is 8 inches until it reaches the west side of the Des Moines river?

A. Yes, sir.

Q. Then it was transformed to a six inch pipe?

A. Yes, sir.

Mr. BYERS: We offer in evidence this Exhibit No. 37 as part of the cross-examination.

Judge CARR: Well it may be considered in evidence.

Witness excused.

2070 JANSSEN HAINES being recalled on the part of the complainant and examined in chief by Hon. George H. Carr, testified as follows:

Q. You may tell the Master whether as has been intimated from time to time throughout this case the Des Moines Gas company have a monopoly on the business of furnishing light and fuel material or cooking material in the city of Des Moines or whether the business is competitive?

A. They have not a monopoly as you express in the question and the business is competitive.

Q. You may go on and state with what you come in competition both in lighting and in furnishing of fuel for cooking?

A. Well in the lighting field we come in competition first with a thoroughly equipped and up to date electric light plant which furnishes electric light and power for business commercial and industrial uses and has its solicitors in the field all the time trying to secure the same class of business and the same business which we — after.

Q. Let me ask you before you go farther if I may interrupt, do you know whether the rates are fixed by an ordinance of the city, speaking of the electric light rates?

A. I believe they are, yes.

Q. Now you may go on.

A. But competition in rate is not the only competition we have to meet. Competition that we have to meet is the effect of their solicitors in the field trying to secure business which our solicitors are trying to secure. This applies to electric light in the commercial field for lighting stores and also in the domestic field for

2071 lighting houses, for the use of electricity for power in industrial properties, the use of electricity in small cooking utensils and for use of electricity for brazing, heating, principally in an industrial way. And in addition to the electrical competition which we are compelled to meet we have the competition of gasoline and oil, gasoline for heating and for gasoline engines for producing power, have competition which we meet in gasoline used for domestic equipment such as laundry dryers and in industrial equipment in laundries for drying, for laundry irons, and in the field of lighting gasoline is used and develops in its use a competition which we have to meet. We also have the competition of kerosene, there are a number of companies in the city furnishing both gasoline and kerosene and delivering it in tank wagons at the consumers' houses. Kerosene is used principally for lighting, but in some cases it is

used for cooking and it is used in industrial work for heating furnaces for power. In addition to that we have to meet the competition developed by very cheap fuel, of soft coal which is produced locally and delivered at the houses of the people in Des Moines at a very low rate and it can be used for cooking and in many instances is used for cooking and is also used for producing power and for various heating appliances which the use of gas would be adopted to and with which we are forced in competition.

Q. Is the sale of gas for domestic cooking an important branch of your business?

A. The sale of gas for domestic cooking first commenced to be an important factor about 12 years ago, there were few gas ranges or cooking stoves used before that, but not to any great extent and that has become a very important factor of our business particularly in the later years. I believe that we have records of some 2072 25,000 or 28,000 gas ranges which have been sold in Des Moines to consumers and in addition to that a large number have been sold by the local dealers. In many cases they have been sold in direct competition with gasoline and coal.

Q. Can you give an estimate of what portion of your output is used for cooking purposes, that is what proportion or percentage is of the gas sold that is used for that purpose as compared with the percentage that is used for lighting purposes or other purposes?

A. Any estimate that I give would be an approximation because I have no accurate figures on it and purely based on my own judgment. I should say in the neighborhood of about 50 per cent or 60 per cent of the total sales of gas, between 50 and 60 per cent of the total sales of gas are used for domestic fuel consumption in gas ranges or domestic equipment such as laundry driers, and laundry heating stoves, water heaters and things of that nature.

Q. Now this seems to be a very important item of your business, or branch of your business. Now what are the fuels with which you must compete. I think you have stated in part but you may answer more fully and in that connection I wish you would tell the Master so it may go into the record what the fact is as to the supply of domestic coal here in Des Moines, that is how expensive coal beds we have here in a general way, how many mines we have engaged in taking out coal in this vicinity?

Objected to as incompetent, and immaterial.

A. There is a very extensive coal field surrounding Des Moines and under most of the city of Des Moines and coal is produced and sold in Des Moines at a very low figure for domestic use and 2073 for industrial use and we have to meet the competition of that in ranges in the houses of our consumers and we also have other fuels to compete with such as coke and charcoal and anthracite coal. The competition with coke and charcoal is a very material thing in business because these fuels are largely used in restaurant cooking ranges and used by chefs in restaurants and as a rule these chefs or cooks in restaurants are accustomed to the use of these fuels such as Anthracite coal and coke and charcoal and it requires a great deal of

effort to get them to change and use gas although it may be more economical and more satisfactory and cause less dirt and so on in their kitchens and their business is difficult to secure because they have been educated to the use of these other forms of fuel and they do not want to change.

Q. There were some matters that you were asked on cross examination I believe to produce, I don't know whether you have in mind exactly what they are. Have you those documents and records that you were asked to produce?

A. I collected them together immediately and kept them together after that, after I looked over my records, but they have not been called for and they are over at the office. I have sent for them. They will be here I think if the man can find them in a few minutes.

Cross-examination by Hon. H. W. BYERS:

Q. You forgot one of your principal competitors didn't you in the light business?

A. If I did I hope you will remind me, I meant to give them all.

Q. You forgot the sun and wood, you forgot that?

Objected to as immaterial.

A. I will answer General Byers' question, the sun is a competitor of ours, we can show it in this way. Our sales have been very materially increased on dark stormy days due to that very fact the sun's light is shut off. If we could have all dark stormy days we could have a very large increase in business.

Q. This terrific competition with the electric light people and these other businesses around here, about how much has that reduced your sales in the last four or five years do you think? I will put that in another way. Nobody else here is manufacturing gas for sale either for lighting purposes or heating purposes or any other purposes that you know of?

A. There are a number of people who have private plants for manufacturing gasoline gas and some who manufacture acetylene gas.

Q. Just notice the way I put the question, I think it eliminates these private plants you are talking about. I mean for sale in this community is there anybody manufacturing gas, the kind of gas you are making, either for illuminating purposes or heating purposes.

A. Under a franchise similar to ours you mean in that respect?

Q. I don't care whether under a franchise or without any or how it is.

A. I don't know of any.

Mr. BYERS: That is all with the exception of course I want those things I asked for at some time when you are ready. One thing I wanted was the minutes of the meeting of the Capital City Gas Light Company's directors and stockholders at the time of the transfer?

Judge CARR: That is the first I ever heard that you were curious about that.

A. I have the oil contracts and the correspondence attached to them.

2075 Q. There was a contract with the Welsbach Lighting Co.?

A. What for?

Q. For gas.

A. That was not called for?

Q. I asked you for contracts and you said the contracts for oil are made by somebody who was purchasing agent for the United Gas Improvement Company that the contracts were held there at the Philadelphia office. I may have asked for all of your oil contracts I don't know, but I have a memorandum of what I asked for which I will have in the morning.

A. If you will look at the record you will note that I stated the purchasing agent for the United Gas Improvement Company and the purchasing agent for the Des Moines Gas Company are the same person and that these contracts are between the oil company and the Des Moines Gas Company signed by the purchasing agent of the Des Moines Gas Company who as an individual is the same man as the purchasing agent of the United Gas Improvement Company. These contracts are the only contracts which are given between the Des Moines Gas Company and the oil company and they are signed by an official of the Des Moines Gas Co. who is purchasing agent and sends me a copy of the contract which he makes.

Q. I won't quarrel with you about that until I have the record?

A. I don't mean to quarrel.

Judge CARR: When General Byers asked about this as I recall it, you said your recollection was that you did not have the original contracts but the material parts of the contracts were furnished you?

A. Yes, sir.

2076 Judge CARR: Do you wish to say anything more about that?
A. I would say that my general understanding that the purchasing agent of the United Gas Improvement Company is the purchasing agent of this company and others and makes contracts with those oil companies direct for the company and because he is able to make a number of contracts of this kind he is enabled to make a very low price as is shown by the correspondence here.

Judge CARR: What I meant particularly to inquire about was, as I recollect your testimony you said that there was sent to you by the purchasing agent as you had it in mind the material parts of the contract. Now what is the fact with reference to that as you find upon investigation?

A. I said I was not sure whether I got a copy of the original contract or just the material parts of it. In looking it up I find I have a carbon copy of the contract itself. These are the ones I offered General Byers just now.

Mr. BYERS: I don't care to spend any time with it now, I am going to use Mr. Haines further later.

Judge CARR: Do you want to recall him before we rest our case?

Mr. BYERS: But I want my memorandum so that I know what I called for.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

2076a

DEF'TS' Ex. # 12.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Des Moines Gas Company.

Detailed Statement of Gas Sold, in Cubic Feet, December 31, 1904, to December 31, 1910.

Years.	Des Moines.		Valley Junction.		Totals.	% of increase.	
	General consumers. Regular.	Public street lamps.	Private lamps.	Used by company.	General consumers. Regular.	Prepayment.	
Dec. 31, 1904.....	218,704,100	63,959,100	7,690,702	13,480	2,040,000	292,407,382	19.7
" " 1905.....	249,450,300	75,655,900	7,301,151	11,789	1,985,700	334,404,840	14.4
" " 1906.....	258,511,000	102,084,600	8,447,181	7,958	2,065,400	372,101,839	11.3
" " 1907.....	278,037,200	134,919,300	8,883,533	7,929	2,574,700	429,519,162	15.4
" " 1908.....	281,748,400	162,841,100	8,640,781	10,275	2,205,700	461,177,956	7.3
" " 1909.....	295,851,500	183,206,000	8,830,992	15,537	3,081,900	497,244,529	7.8
" " 1910.....	308,594,800	204,330,000	8,546,498	15,056	3,615,600	531,991,054	7.0

DEFENDANT'S EXHIBIT No. 13.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Des Moines Gas Company.

Record of Mains Laid.

Size of main.	No. ft. in ground 1-1-1888.	No. ft. laid in 1888.	No. ft. taken up or aban- doned 1888.	No. ft. in ground 1-1-1889.	No. ft. laid in 1889.	No. ft. taken up or aban- doned 1889.
2½" & under.....	12,368	.....	.....	12,368	472	.....
3".....	14,540	.....	.....	44,540	1,810	1,396
4".....	41,695	3,685	.....	45,380	25,021	.....
6".....	13,699	.....	.....	13,699	3,325	.....
8".....	6,020	.....	.....	6,020	.....	.....
10".....	1,760	.....	.....	1,760	.....	.....
12".....	.....	.....	.....	.....	.....	.....
14".....	622	.....	.....	622	.....	.....
16".....	.....	.....	.....	.....	.....	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	120,704	3,685	.....	124,389	30,628	1,396
Miles.....	22.86	.69	.....	23.55	5.80	.26

Size of main.	No. ft. in ground 1-1-1890.	No. ft. laid in 1890.	No. ft. taken up or aban- doned 1890.	No. ft. in ground 1-1-1891.	No. ft. laid in 1891.	No. ft. taken up or aban- doned 1891.
2½" & under.....	12,840	642	.....	13,482	1,020	.....
3".....	44,954	1,940	2,270	44,624	340	.....
4".....	70,401	11,422	.....	81,823	9,989	.....
6".....	17,024	4,856	.....	21,880	3,026	.....
8".....	6,020	.....	.....	6,020	.....	.....
10".....	1,760	.....	.....	1,760	.....	.....
12".....	.....	.....	.....	.....	1,790	.....
14".....	622	.....	.....	622	.....	.....
16".....	.....	.....	.....	.....	3,015	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	153,621	18,860	2,270	170,211	19,180	.....
Miles.....	29.09	3.57	.43	32.23	3.64	.....

Size of main.	No. ft. in ground 1-1-1892.	No. ft. laid in 1892.	No. ft. taken up or aban- doned 1892.	No. ft. in ground 1-1-1893.	No. ft. laid in 1893.	No. ft. taken up or aban- doned 1893.
2½" & under.....	14,502	.....	230	14,272	.....	346
3".....	44,964	.....	.....	44,964	.....	.....
4".....	91,812	431	.....	92,243	5,135	1,364
6".....	24,906	1,915	.....	26,821	2,076	30
8".....	6,020	.....	.....	6,020	.....	.....
10".....	1,760	.....	.....	1,760	.....	.....
12".....	1,790	.....	.....	1,790	.....	.....
14".....	622	.....	.....	622	.....	.....
16".....	3,015	3,015
20".....
24".....
Total.....	189,391	2,346	230	191,507	7,211	1,787
Miles.....	35.87	.44	.04	36.27	1.37	.33

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Size of main.	No. ft. in ground 1-1-1894.	No. ft. laid in 1894.	No. ft. taken up or aban- doned 1894.	No. ft. in ground 1-1-1895.	No. ft. laid in 1895.	No. ft. taken up or aban- doned 1895.
2½" & under.....	13,929	.....	.....	13,929	.....	351
3".....	44,964	.....	.....	44,964	392	1,950
4".....	96,014	692	.....	96,706	3,078	.....
6".....	28,867	.....	.....	28,867	2,810	351
8".....	6,020	.....	.....	6,020	516	.....
10".....	1,760	.....	.....	1,760	.....	.....
12".....	1,790	.....	.....	1,790	712	.....
14".....	622	.....	.....	622	.....	.....
16".....	3,015	.....	.....	3,015	.....	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	196,981	692	.....	197,673	7,508	2,852
Miles.....	37.31	.13	.....	37.44	1.42	.50

Size of main.	No. ft. in ground 1-1-1896.	No. ft. laid in 1896.	No. ft. taken up or aban- doned 1896.	No. ft. in ground 1-1-1897.	No. ft. laid in 1897.	No. ft. taken up or aban- doned 1897.
2½" & under.....	13,578	.....	225	13,353	.....	.....
3".....	43,406	1,971	3,256	42,121	.....	4,876
4".....	99,784	47,119	1,963	144,940	34,853	1,500
6".....	31,326	11,188	.....	42,514	13,118	.....
8".....	6,536	.....	.....	6,536	1,204	.....
10".....	1,760	.....	.....	1,760	2,354	.....
12".....	2,502	433	.....	2,936	1,565	.....
14".....	622	.....	.....	622	.....	.....
16".....	3,015	.....	.....	3,015	.....	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	202,529	60,711	5,444	257,796	53,094	6,376
Miles.....	38.36	11.50	1.03	48.83	10.05	1.21

Size of main.	No. ft. in ground 1-1-1898.	No. ft. laid in 1898.	No. ft. taken up or aban- doned 1898.	No. ft. in ground 1-1-1899.	No. ft. laid in 1899.	No. ft. taken up or aban- doned 1899.
2½" & under.....	13,363	.....	.....	13,353	.....	400
3".....	37,245	954	.....	38,199	.....	1,125
4".....	178,293	26,136	1,275	203,154	18,016	756
6".....	55,632	3,370	.....	59,002	3,324	444
8".....	7,740	6,603	.....	14,343	2,382	.....
10".....	4,114	314	.....	4,428	4,751	480
12".....	4,500	.....	.....	4,500	.....	.....
14".....	622	.....	.....	622	.....	.....
16".....	3,015	.....	.....	3,015	634	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	304,514	37,377	1,275	340,616	29,107	3,205
Miles.....	57.67	7.08	.24	64.51	5.51	.60

2076d	Size of main.	No. ft. in ground 1-1-1900.	No. ft. laid in 1900.	No. ft. taken up or aban- doned 1900.	No. ft. in ground 1-1-1901.	No. ft. laid in 1901.	No. ft. taken up or aban- doned 1901.
	2½" & under.....	12,953	.....	.....	12,953	.....	360
	3".....	37,074	1,174	.....	38,248	.....	1,655
	4".....	220,414	10,354	.....	230,768	24,461	260
	6".....	61,882	2,437	.....	64,319	7,520	.....
	8".....	16,725	1,500	.....	18,225	6,514	.....
	10".....	8,699	.....	.....	8,699	4,783	.....
	12".....	4,500	.....	.....	4,500	2,798	372
	14".....	622	.....	.....	622	.....	.....
	16".....	3,649	.....	.....	3,649	5,041	.....
	20".....	.....	.....	.....	.....	.....	.....
	24".....	.....	.....	.....	.....	.....	.....
	Total.....	366,518	15,465	.....	381,983	51,062	2,647
	Miles.....	69.42	2.93	.....	72.35	9.66	.50

Size of main.	No. ft. in ground 1-1-1902.	No. ft. laid in 1902.	No. ft. taken up or aban- doned 1902.	No. ft. in ground 1-1-1903.	No. ft. laid in 1903.	No. ft. taken up or aban- doned 1903.
2½" & under.....	12,593	.....	.....	12,593	.....	.....
3".....	36,593	439	.....	37,032	.....	.....
4".....	254,969	19,101	.....	274,070	29,423	.....
6".....	71,839	5,537	.....	77,376	4,345	.....
8".....	24,739	7,787	.....	32,526	5,844	.....
10".....	13,432	4,015	.....	17,447	4,880	.....
12".....	6,921	1,329	.....	8,250	4,308	.....
14".....	622	.....	.....	622	.....	.....
16".....	8,690	.....	.....	8,690	4,853	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	430,398	38,208	.....	468,606	53,653	.....
Miles.....	81.51	7.24	.....	88.75	10.16	.....

Size of main.	No. ft. in ground 1-1-1904.	No. ft. laid in 1904.	No. ft. taken up or aban- doned 1904.	No. ft. in ground 1-1-1905.	No. ft. laid in 1905.	No. ft. taken up or aban- doned 1905.
2½" & under.....	12,593	.....	767	11,826	281	752
3".....	37,032	.....	.....	37,032	.....	.....
4".....	303,493	18,143	.....	321,636	50,864	974
6".....	81,721	3,951	.....	85,672	17,618	.....
8".....	38,370	.....	.....	38,370	7,506	.....
10".....	22,327	587	.....	22,914	2,661	.....
12".....	12,558	5,055	.....	17,613	4,930	.....
14".....	622	.....	.....	622	.....	.....
16".....	13,543	1,974	.....	15,517	7,107	.....
20".....	.....	.....	.....	.....	.....	.....
24".....	.....	.....	.....	.....	.....	.....
Total.....	522,259	29,710	767	551,202	90,967	1,726
Miles.....	98.91	5.63	.15	104.39	17.23	.32

2076e	No. ft. in ground 1-1-1906.	No. ft. taken up or aban- doned 1906.	No. ft. in ground 1-1-1907.	No. ft. laid in 1907.	No. ft. taken up or aban- doned 1907.
Size of main.					
2½" & under.....	11,355	400	22,387	414	1,690
3".....	37,032	1,911	36,438	.....	708
4".....	371,526	226	419,141	26,374	336
6".....	103,289	108	143,429	4,876	.....
8".....	45,876	882	51,234	3,122	.....
10".....	25,575	.....	26,831	1,851	.....
12".....	22,543	.....	26,068	4,750	.....
14".....	622	.....	622	.....	.....
16".....	22,624	.....	22,918	4,456	.....
20".....	.....	.....	6,036	.....	.....
24".....	.....	.....	.....	.....	.....
Total.....	640,442	3,527	755,104	45,843	2,734
Miles.....	121.30	.67	143.01	8.69	.52

Size of main.	No. ft. in ground 1-1-1908.	No. ft. laid in 1908.	No. ft. taken up or aban- doned 1908.	No. ft. in ground 1-1-1909.	No. ft. laid in 1909.	No. ft. taken up or aban- doned 1909.
2½" & under.....	21,111	.....	487	20,624	266	779
3".....	35,730	.....	.....	36,730	.....	429
4".....	445,179	32,017	.....	477,196	40,209	.....
6".....	148,305	158	.....	148,463	2,159	.....
8".....	54,356	1,522	.....	55,878	2,875	.....
10".....	28,682	.....	.....	28,682	3,377	594
12".....	30,818	372	.....	31,190	159	.....
14".....	622	.....	.....	622	.....	.....
16".....	27,374	.....	.....	27,374	1,132	.....
20".....	6,036	.....	.....	6,036	.....	.....
24".....	.....	1,819	.....	1,819	.....	.....
Total.....	798,213	35,888	487	833,614	50,777	1,802
Miles.....	151.18	6.79	.09	157.88	9.62	.34

Size of main.	No. ft. in ground 1-1-1910.	No. ft. laid in 1910 (to Nov. 1st).	No. ft. taken up or aban- doned 1910 (to Nov. 1st).	No. ft. in ground 1-1-'10.	2½" parallel to curb (add to adjust).	No. ft. in ground 11-1-'10.
2½" & under.....	20,111	1,640	812	20,939	13,008	33,947
3".....	35,301	.....	.....	35,301	.....	35,301
4".....	518,005	55,719	.....	573,724	.....	573,724
6".....	150,622	11,382	.....	162,004	.....	162,004
8".....	58,753	6,854	.....	65,607	.....	65,507
10".....	31,465	543	.....	32,008	.....	32,008
12".....	31,349	.....	.....	31,349	.....	31,349
14".....	622	.....	.....	622	.....	622
16".....	28,506	.....	.....	28,506	.....	28,506
20".....	6,036	.....	.....	6,036	.....	6,036
24".....	1,819	.....	.....	1,819	.....	1,819
Total.....	882,589	76,138	812	957,915	13,008	970,923
Miles.....	167.16	14.42	.15	180.43	2.46	183.89

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DEFENDANTS' EXHIBIT No. 14.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Des Moines Gas Company, Des Moines, Iowa.

History of Price of Gas.

Prior to January 1, 1896, the price of gas in Des Moines was:

	Gross.	Discount.	Net.
Illuminating Purposes	\$1.80	10¢	\$1.70

Fuel purposes:

Less than 10,000 c. f.	1.80	30¢	1.50
Over 10,000 c. f.	1.80	55¢	1.25

City Ordinance No. 724, passed April 29, 1895, and again May 16, 1895, as amended by City Ordinance No. 751, passed February 7, 1896, fixed the *date* as follows:

For all purposes:

1896 to 1897	1.40	10¢	1.30
1898 to 1899	1.35	10¢	1.25
1900 to 1901	1.30	10¢	1.20
1902, 1903 and 1904	1.25	10¢	1.15
1905	1.20	10¢	1.10
1906 to 1910 incl.	1.10	10¢	1.00

This last rate of \$1.00 net is the one in force at the present time.

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DEFENDANT'S EXHIBIT No. 15.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Des Moines Gas Company.

Statement of Profit & Loss.

Revenue—Gas Sales.

	Year Ended September 30, 1908.				
	Am't rec. per M. C. F.	Amount.	Cubic feet.	Am't rec. per M. C. F.	Amount.
Des Moines:					
General Consumers—Regular.....	1.1000	307,772.19	290,957,300	1.1000	320,053.03
General Consumers—Prepayment.....	1.0000	155,674.10	177,523,600	1.0000	177,523.60
Street Lamps	1.0000	8,706.29	8,740,525	1.0000	8,740.49
Company	1.0000	1,605.35	2,791,300	1.0000	2,791.30
Total Des Moines.....	1.0613	473,757.93	480,012,725	1.0606	509,103.42
Valley Junction:					
General Consumers—Regular.....	1.6000	4,118.72	2,438,700	1.6000	3,901.92
General Consumers—Prepayment.....	1.5000	4,489.65	3,718,100	1.5000	5,577.15
Total Valley Junction.....	1.5462	8,608.37	6,156,800	1.5396	9,479.07
Total—Combined	1.0673	482,366.30	486,169,525	1.0667	518,587.49
Less Discount .....	.0559	25,260.35	.....	.0548	26,643.00
Total revenue from gas.....	1.0114	457,105.95	.....	1.0119	491,944.49

Operating Expenditures.

	Cost per M. C. F. made.	Amount.	Cost per M. C. F. made.	Amount.
Manufacturing:				
Manufacturing .....	.0053	2,473.12	.0060	3,044.69
Boiler Fuel .....	.0208	10,019.91	.0213	10,869.97
Expense Works .....	.0111	5,317.97	.0113	5,765.39
Generator Fuel .....	.1120	53,951.81	.1108	56,413.18
Manufacturing Labor .....	.0182	8,772.99	.0187	9,520.39
Oil .....	.1744	83,967.52	.1283	65,383.55
Purification Labor .....	.0008	401.49	.0013	654.25
Purification Supplies .....	.0005	246.39	.0025	1,289.81
Repairs Works .....	.0140	6,748.07	.0129	6,558.02
Water Tax .....	.0020	972.49	.0021	1,047.07
Total .....	.3591	172,871.76	.3152	160,546.32
Residuals .....	.0076	3,646.16	.0120	6,100.21
Totals3515	169,225.60	.3032	154,446.11
Leakage02290145
Total manufacturing3744	169,225.60	.3177	154,446.11

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	Cost per M. C. F. sold.	Amount.	Cost per M. C. F. sold.	Amount.
Distribution:				
Distribution0057	2,693.63	.0063	3,044.63
Complaint Expense .....	.0044	1,995.93	.0046	2,224.74
Distribution Office Expense .....	.0066	2,977.58	.0097	4,717.00
Gratuitous Work .....	.0051	2,322.33	.0037	1,801.47
Repair Mains .....	.0085	3,828.48	.0084	4,101.17
Repairs Services .....	.0012	529.84	.0023	1,087.65
Repairs Meters .....	.0124	5,598.40	.0090	4,379.65
Setting & Removing Meters .....	.0113	5,110.67	.0132	6,420.28
Street Mains Abandoned .....	.0002	83.60	.0014	693.00
Total Distribution .....	.0554	25,050.46	.0586	28,469.59
Commercial Expense:				
Commercial Expense .....	.0031	1,390.17	.0031	1,483.80
Expense Collection .....	.0096	4,344.95	.0091	4,445.41
Expense Office .....	.0191	8,645.22	.0226	10,995.17
Office Salaries .....	.0435	19,671.20	.0428	20,801.52
Total Commercial Expense .....	.0753	34,051.54	.0776	37,725.90
New Business:				
New Business .....	.0031	1,389.99	.0049	2,398.51
Advertising .....	.0093	4,191.99	.0085	4,142.23
Appliance Demonstration .....	.0029	1,289.44	.0033	1,611.54
Expense Soliciting .....	.0095	4,293.97	.0141	6,862.90
Gas Appliances .....	.....	19.96	.0040	1,927.26

Gas Engine Expense.....	.0006	204.71
House Fitting Expense.....	.0005	181.72
Gas Arc Rental & Maintenance.....	.0032	2,527.29
Gas Stove Depreciation.....	.0000	1,467.38
Total New Business.....	.0341	15,370.74

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Expense:

Accidents & Damages.....	.0011	494.24	.0082	3,990.74
Association Meetings.....	.0013	580.17	.0021	1,031.30
Expense General.....	.0029	1,324.85	.0032	1,553.75
Expense Extraordinary.....	.0039	1,749.52	.0055	2,667.19
Insurance.....	.0043	1,938.84	.0031	1,491.49
Interest.....	.0004	168.18	.0022	1,054.08
Litigation.....	.0007	325.00	.0017	824.97
Salaries General.....	.0047	2,117.53	.0058	2,824.56
Uncollectible Bills.....	.0000	276.62	.0004	181.47
Replacement Values.....	.0006	8,638.59	.0278	13,511.39
Rate Regulation Expense.....	.0191	29,276.55	.0667	32,437.49
Street Lamp Operating.....	.0648	281,613.48	.5828	283,339.06
Total Expense.....	.6231	175,492.47	.4291	208,605.43
Taxes.....	.3883			
Total Operating Expense.....				
Net Earnings.....				

	Cost per M. C. F. sold.	Amount.	Cost per M. C. F. sold.	Amount.
Miscellaneous Sales .....	.0003	131.99	.0002	95.24
Gross Corporate Income.....	.3886	175,624.46	.4293	208,700.67
Deductions from Gross Corporate Income:				
Fixed Charges .....	.1940	87,675.49	.1737	84,439.23
Net Profits.....	.1946	87,948.97	.2556	124,261.44

Gas Summary.

	9-30-1904	9-30-1909.
Total Gas Accounted for.....	451,962,495 c. f.	486,159,525 c. f.
Leakage	29,487,133 c. f.	23,185,907 c. f.
Gas Sent Out.....	481,449,628 c. f.	509,355,432 c. f.
Total Gas Made.....	481,633,356 c. f.	509,355,294 c. f.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Des Moines Gas Company.

Statement of Profit & Loss.

Revenue—Gas Sales.

Year ended September 30, 1910.						
	Cubic feet.	Am't rec. per M. C. F.	Amount.	Cubic feet.	Am't rec. per M. C. F.	Amount.
Des Moines:						
General Consumers—Regular.....	303,620,000	1.1000	333,980.85	308,594,800	1.1000	339,454.28
General Consumers—Prepayment.....	197,300,200	1.0000	197,300.20	204,330,000	1.0000	204,330.00
Street Lamps	8,508,172	1.0000	8,508.18	8,561,554	1.0000	8,561.57
Company	3,605,700	1.0000	3,605.70	3,615,600	1.0000	3,615.60
Total Des Moines.....	513,034,072	1.0591	543,394.93	525,101,954	1.0587	555,961.45
Valley Junction:						
General Consumers—Regular.....	2,516,300	1.6000	4,026.08	2,453,700	1.6000	3,925.92
General Consumers—Prepayment.....	4,212,800	1.5000	6,319.20	4,435,400	1,5000	6,653.10
Total Valley Junction.....	6,729,100	1.5374	10,345.28	6,889,100	1.5356	10,579.02
Total Combined	519,763,172	1.0554	553,740.21	531,991,054	1.0649	566,540.47
Less Discount .....	.....	.0528	27,446.71	.....	.0519	27,647.47
Total Revenue from Gas.....	.....	1.0126	526,293.50	.....	1.0130	538,893.00

Operating Expenditures.

Manufacturing:

	Cost per M. C. F. made.	Amount.	Cost per M. C. F. made.	Amount.
Manufacturing .....	.0072	3,986.27	.0068	3,718.76
Boiler Fuel .....	.0304	16,657.04	.0288	15,988.99
Expense Works .....	.0150	8,201.76	.0137	7,611.67
Generator Fuel .....	.1045	57,198.26	.1030	57,297.79
Manufacturing Labor .....	.0199	10,858.84	.0192	10,682.68
Oil .....	.1156	63,260.24	.1150	63,949.96
Purification Labor .....	.0009	488.99	.0009	511.88
Purification Supplies .....	.0028	1,511.34	.0013	737.83
Repairs Works .....	.0267	14,588.34	.0255	14,193.78
Water Tax .....	.0019	1,038.04	.0018	1,006.12
Total .....	.3249	177,789.12	.3160	175,699.43
Residuals .....	.0146	7,994.51	.0184	10,233.02
Totals3103	169,794.61	.2975	165,466.44
Leakage01640134
Total manufacturing3267	169,794.61	.3110	165,466.44

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Distribution:

Distribution0075	3,877.48	.0071	3,803.38
Complaint Expense0066	3,434.41	.0064	3,372.94
Distribution Office Expense .....	.0125	6,514.47	.0114	6,066.58

Gratuitous Work .....	.0109	5,655.39	.0125	6,643.77
Repair Mains .....	.0146	7,581.60	.0176	9,347.30
Repairs Services .....	.0075	3,917.84	.0098	5,224.76
Repairs Meters .....	.0107	5,551.15	.0098	5,221.63
Setting & Removing Meters .....	.0105	5,439.09	.0101	5,387.46
Street Mains Abandoned .....	.0005	288.20	.0002	129.20
Total Distribution .....	.0813	42,259.63	.0849	45,187.02
Commercial Expense:				
Commercial Expense .....	.0035	1,796.26	.0035	1,890.01
Expense Collection .....	.0110	5,692.99	.0120	6,374.63
Expense Office .....	.0270	14,049.35	.0285	15,177.30
Office Salaries .....	.0454	23,622.36	.0461	24,509.10
Total Commercial Expense .....	.0869	45,160.96	.0901	47,951.04
New Business:				
New Business .....	.0060	3,111.00	.0059	3,154.58
Advertising .....	.0130	6,777.15	.0129	6,853.03
Appliance Demonstration .....	.0028	1,475.00	.0032	1,711.85
Expense Soliciting .....	.0182	9,430.33	.0181	9,646.65
Gas Appliances .....	.0035	1,814.34	.0041	2,188.14
Gas Engine Expense .....	.0001	47.71	.0001	60.02
House Fitting Expense .....	.0013	679.11	.0003	178.77
Gas Arc Rental & Maintenance .....	.0104	5,406.15	.0094	5,005.86
Gas Stove Depreciation0002	108.15
Total New Business0483	25,112.10	.0454	34,173.23

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Expense:

	Cost per M. C. F. sold.	Amount.	Cost per M. C. F. sold.	Amount.
Accidents & Damages.....	.0041	2,143.93	.0049	2,616.71
Association Meetings .....	.0027	1,367.77	.0022	1,164.92
Expense General .....	.0024	1,257.89	.0028	1,488.08
Expense Extraordinary .....	.0082	4,258.69	.0075	3,964.78
Insurance .....	.0039	2,025.74	.0035	1,841.95
Interest .....	.0003	154.20	.0001	75.05
Litigation .....	.0019	1,000.71	.0019	999.96
Salaries General .....	.0176	9,166.66	.0188	10,000.00
Uncollectible Bills .....	.0059	3,068.16	.0062	3,329.34
Replacement Values .....	.0007	348.18	.....	.....
Rate Regulation Expense.....	.....	.....	.0105	5,602.00
Street Lamp Operating.....	.0012	604.86	.0012	618.35
Total Expense.....	.0483	25,088.39	.0594	31,551.04
Taxes .....	.0728	37,866.74	.0726	38,580.81
Total Operating Expense.....	.6643	345,282.43	.6634	352,909.58
Net Earnings.....	.3483	181,011.07	.3496	185,983.42
Miscellaneous Sales .....	.0007	371.49	.0008	437.04
Gross Corporate Income.....	.3490	181,382.56	.3504	186,420.46

2076m

DEFENDANT'S EXHIBIT No. 17.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Cost of Services.

Yr.	No.	Length.		Salary.		Per ft.	Material.		Per ft.	Total.	Sundries.		Per ft.	Total
		Total.	Per service.	Total.	Per service.		Total.	Per service.			Per service.	Per ft.		
'06.....	1272	94,352	74.2	7,093.56	5.57	7.52	7,903.07	6.21	8.39	1,180.19	.928	1.251		44.9
'07.....	1213	82,588	68.1	5,351.07	4.42	6.49	6,973.14	5.74	8.44	1,154.67	.952	1.398		39.2
'08.....	886	74,219	83.7	5,446.40	6.15	7.34	6,505.56	7.34	8.76	1,925.81	2.174	2.595		39.3
'09.....	1058	85,982	81.3	7,952.96	7.52	9.27	7,324.40	6.93	8.52	1,014.20	.959	1.180		45.7
'10.....	1280	113,958	88.9	9,040.72	7.06	7.93	9,429.67	7.37	8.28	1,631.76	1.275	1.433		330.5
	5709	451,099	79.2	34,884.71	6.11	7.73	38,135.84	6.68	8.45	6,906.63	1.210	1.531		529.7

DEFENDANT'S EXHIBIT No. 17.

Filed Apr. 5, 1912. Wm. C. McArthur, Clerk.

Cost of Services.

Service.	Per ft.	Material, Total.	Per service.	Per ft.	Total.	Sundries, Per service.	Per ft.	Total.	Paving, Per serv.	Per ft.	Total.	Total, Per service.	Per ft.	Credit.
57	7.52	7,903.07	6.21	8.39	1,180.19	.928	1.251	44.92	.0353	.0476	16,221.74	12.75	17.19	1,356.27
42	6.49	6,973.14	5.74	8.44	1,154.67	.952	1.398	39.28	.0324	.0476	13,518.16	11.14	16.37	1,194.70
15	7.34	6,505.56	7.34	8.76	1,925.81	2.174	2.595	39.30	.0782	.0934	13,947.07	15.74	18.79	1,357.05
52	9.27	7,324.40	6.93	8.52	1,014.20	.959	1.180	45.75	.0432	.0532	16,337.31	15.45	19.01	1,578.18
06	7.93	9,429.67	7.37	8.28	1,631.76	1.275	1.433	330.50	.258	.2900	20,432.65	15.96	17.93	1,853.70
11	7.73	38,135.84	6.68	8.45	6,906.63	1.210	1.531	529.75	.0928	.1174	80,456.93	14.09	17.83	7,339.90

Deduction from Gross Corporate Income:

Fixed Charges	1539	79,961.07	.1504	80,014.10
Net Profits	<u>.1951</u>	<u>101,401.49</u>	<u>.2000</u>	<u>106,406.36</u>

Gas Summary.

	9-30-1910.	12-31-1910.
Total Gas Accounted for.....	519,763,172 c. f.	631,991,054 c. f.
Leakage	27,510,104 c. f.	23,972,683 c. f.
Gas Sent Out.....	547,273,276 c. f.	555,963,737 c. f.
Total Gas Made.....	547,055,539 c. f.	556,432,721 c. f.

(Here follows Defendant's Exhibit No. 17, marked page 2076m.)

AUGUST 11, 1911—at 9:30 a. m.

Counsel for respective parties all present.

Testimony on part of complainant resumed as follows:

JANSEN HAINES, re-called for further cross examination, examined by Mr. Byers, testified:

Q. I have since checked up the memorandum I made at the time when I asked you to produce the minute book covering the transfers of the Capital City Gas Light Company to the Des Moines Gas Company and United Gas Improvement Company, and asked you for your monthly report to the United Gas Improvement Company beginning with September, October, November and December 1910, and I asked for a copy of your last estimate covering improvements and extensions and changes in the plant you say you made, and I asked for the oil contract we were talking about yesterday; now have you with you the minute book that I asked you about?

A. I have here the minute book of the Directors' meeting of February 28, 1906, of the Capital City Gas Light Company, of which Mr. Lewis Lilly, Mr. A. B. Cummins and S. T. Boudine were directors at that time.

Q. For what year?

A. February 28, 1906.

Q. I do not think that is the book I have reference to unless the *the* other minutes I want are in there. The record I want is the minute book showing the transfer.

Mr. GUERNSEY: I think that is the book Mr. Haines refers to, which shows the sale of the Capital City Gas Light Company.

2078 Q. That is what I want. Does that contain the minutes of the meeting of the Des Moines Gas Company when the transfer was made and the property transferred to the United Gas Improvement Company?

Objected to on part of complainant because it assumes the property was transferred to the United Gas Improvement Company.

A. The minutes of this meeting show the sale of the Capital City Gas Light Company as authorized by the board of directors, Mr. Lewis Lilly, A. B. Cummins and S. T. Boudine, under date of February 28, 1906, and the terms of the sale.

Q. What is that?

A. And the terms of the sale.

Q. Is there in the record any minutes of meetings of the Des Moines Gas Company as it was made up at that time, the directory board?

A. No, sir.

Q. Who composed the directory board at the time this transfer was made, of the Des Moines Gas Company?

Mr. GUERNSEY: Turn to the book if you have it.

Mr. BYERS: I have no disposition to get anything I am not entitled to. I want to get the record to show the transfer.

A. Yes, that is all right; I am only too glad to give you any information I can give. I want to understand it before I can give it to you; that is all. The minute book of the Des Moines Gas Company stockholders' and directors' minutes of the meeting held, Des Moines, Iowa, March 1, 1906, shows that the first board of directors were, George H. Carr, James P. Hewitt, Craig T. Wright, F. Corliss Morgan and Rollin Norris.

Q. Does the book you are reading from and the one you referred to a moment ago contain anything else than the record of 2079 the meetings of the directors' and stockholders' meetings?

A. I was going to say, these minute books contain the minutes of the stockholders and directors respectively of the Capital City Gas Light Company and the Des Moines Gas Light Company, as shown in those two books.

Q. There is nothing else in there?

A. No; they are just the minute books.

Judge CARR: You don't mean there is nothing else in the minute books.

Mr. BYERS: I mean whether there are any other matters that are not pertinent and relevant to the meetings, in these books, because I am going to have them exhibited.

Judge CARR: The minute books of the meetings of the board of directors, I presume are on a great many subjects.

Mr. BYERS: If Mr. Haines will let me look them over at the office, I will look them over and determine what I want.

Judge CARR: You want the minutes of this transfer of the Capital City Gas Light Company to the Des Moines Gas Company. We are ready to furnish that on the assumption that it is material. I submit to the Master that it is not proper for them to ask us to give them the minute book- to go all through them.

Mr. BYERS: I do not intend to do that. Whatever is proper and material in there I would like to have and would like to get it.

Judge CARR: You are asking us to produce the records, when you ask for a thing you must of necessity show that there is some materiality to it.

Mr. BYERS: How am I going to do that without examining them?

Judge CARR: You do not claim the right to go into all our 2080 records whether they are involved in this case or not?

Mr. BYERS: Of course, the materiality will have to be passed on by the Master.

Judge CARR: The rule is perfectly well settled. If there is anything that is material, we will be glad to furnish it.

Mr. BYERS: I will tell you what I am willing to do. I am willing to let the Master take the book and go through it and let him confine me to the introduction of what in his judgment is material and proper.

Mr. GUERNSEY: I think the rule is absolutely settled in the Federal Court. If a person wants to inspect papers he must set out

what he wants to inspect and that it is material, and set out the facts to show it is material.

Mr. BYERS: Do you want me to do that?

Mr. GUERNSEY: If Mr. Byers has in mind any matters he deems material, if he will let us know what they are, we will either furnish it to him or present the matter to the Master.

The MASTER: This is simply a reorganization of the original Gas Company, a taking it over.

Mr. BYERS: That is exactly one of the things I wanted to get at.

Mr. GUERNSEY: It was an actual sale as a matter of law.

The MASTER: I understand there is an actual deed here and a copy of the articles of incorporation.

Judge CARR: There is an actual deed of transfer from the Capital City Gas Light Company.

Mr. BYERS: I think it makes a good deal of difference whether it is a reorganization or an actual sale. The two books have been produced by Mr. Haines and reference made to matters in them. They may be exhibited at this time and then we will decide later how much of them or what part of them we will want to use, if any.

Judge CARR: I would like to ask Mr. Haines to state the pages of the minute books of the two records this transfer covers; first state, Mr. Haines, the minutes of the stockholders' and directors' meeting of the Capital City Gas Light Company, that is, the pages where that record is found, and then do the same as to the minutes of the Des Moines Gas Company, if you will.

A. The minutes of the stockholders' meeting authorizing the transfer of the property of the Capital City Gas Light Company are set out in Book 2, Minutes of Stockholders and Directors of the Capital City Gas Light Company, on page 178 to page 182, inclusive; and the Directors' meeting of the Capital City Gas Light Company, following the stockholders' meeting and relating to the transfer of the property of the Capital City Gas Light Company are set out on page 183 to 187 inclusive, in the same book.

Mr. BYERS: The book you were just referring to is the first one you produced?

A. I don't remember which I produced first. It is the Capital City Gas Light Company stockholders' and directors' minutes, Book 2.

Mr. BYERS: What else is there in that book other than the meetings of the directors and stockholders of the company?

Objected to on part of complainant as being immaterial.

A. I believe that is all, to my knowledge; that is, the minutes of the stockholders and directors at this meeting and other meetings.

Judge CARR: You say that is all. Is that all that is in the book, or all in the book on that subject; I just wanted to understand that answer; is what you referred to all there is in the book or is it all there is in the book on the subject of the transfer.

A. I think it is all there is in the book on the subject of the transfer.

The MASTER: He wants to know if the books simply contain the stockholders' meetings and the directors' meetings or whether there is anything else in the books?

A. No, sir; there is nothing else I know of.

Mr. BYERS: The defendants offer the book in evidence.

Judge CARR: We object to the offer of this book in evidence, as a whole, for the reason that it is irrelevant, and immaterial to any matter in issue in this case and is an unnecessary encumbering of the records in this case. Here is a large book containing, I don't know how many pages of matter not shown to be in any wise relevant to the issues in this case. We object to the offer of so much of it as does not pertain to the matter under consideration and object to that part of the book, particularly outside of that which has been referred to and designated by the witness.

The MASTER: I suppose that is merely all you are offering now.

Mr. BYERS: I don't know what is in it. I am going to look at it and see.

The MASTER: The other may be proper as showing the manner in which it is kept.

Judge CARR: Now, your honor will see, General Byers offers this books as a whole in evidence without any claim being made that there is anything in the book aside from the matters specifically inquired about relevant to any issue in this case. He makes the assertion in that connection that he is going to find out what 2083 is in the book. Therefore having offered the book in evidence he will claim the right to go all through the book and go into every matter the book discloses. I submit that is a pretty unusual way of trying a lawsuit.

The MASTER: He can't tear the pages out.

Judge CARR: I suggest that it is quite proper in a case of this kind to seal the document as to any matters not inquired about.

Mr. BYERS: If there is anything you don't want me to have, just seal it. I want everything in there that pertains to this property.

Judge CARR: We simply want to try our case in an orderly kind of a way; we do not want the implication cast that we have something in the book we do not want General Byers to see. If there is anything that can have any possible bearing on this lawsuit, it is there for him.

Mr. BYERS: How can I find out?

Judge CARR: If you have anything in mind that you want you can suggest it. The witness told you that is all there is in the book.

The MASTER: They have a right to examine the books to see whether there is anything they want. The other matter can be determined later.

Mr. BYERS: What is the name of that other book?

The WITNESS: This is the Des Moines Gas Company No. 1 stockholders' and directors' minutes.

Mr. BYERS: The defendant- offers that in evidence in connection

with this cross examination in so far as the matters in the
2084 book refer to the business of the Des Moines Gas Company
and its property.

Judge CARR: To that complainant objects as being immaterial and irrelevant to any matter in issue in this case, other than that part of the book which has been referred to and identified and designated by the witness as being the record with reference to the transfer of the Capital City Gas Light Company to the Des Moines Gas Company.

The MASTER: That is all I understand they want.

Judge CARR: Did you point out in your answer, Mr. Haines, the pages of that book?

A. I wasn't asked to.

Judge CARR: In connection with this objection I would like to ask the witness to point out to your honor the pages of that book which contain the record of the transfer between the two companies and designate and specify the pages which contain that record.

A. Pages 1 to 53 inclusive.

Judge CARR: Let me ask you, Mr. Haines, if that book which you have produced designated Des Moines Gas Company Stockholders' and Directors' Meeting, contains other records of the stockholders and directors of the Des Moines Gas Company that relate to wholly different matters from that concerning which you have been interrogated?

Objected to on part of defendants as not re-examination or proper.

A. It does, yes sir.

Judge CARR: We renew our objections. We have been asked to produce certain records here and have produced them, but
2085 they are bound in volumes with these others, and I think that the production ought to be confined to the things we have been asked to produce and that are relevant to the issues in this case. As I understand General Byers, if these books are to be received in evidence, the parts of the books not offered ought to be sealed in some way and it ought to be understood that they are no part of the record offered in this case, and we ought to know that with reference to making up the record finally.

Mr. BYERS: Let me finish my cross examination and see whether I know myself what I want. There will be a good deal less trouble maybe after we get through.

Q. What book have you before you now?

A. This is the Des Moines Gas Company No. 1 Stockholders' and Directors Minutes.

Q. Now you stated that certain pages contain the minutes of the directors meetings of the Des Moines Gas Company for certain purposes; what is contained in the balance of the book, in a general way, not particular things in it, but what is the book made up of the balance of it, what does it show?

Objected to as being immaterial.

A. Is simply shows the minutes of the meetings of the stockholders and directors as they occur regularly, annually and monthly, the annual meetings of the stockholders and monthly meetings of the directors and occasionally a special meeting.

Q. And has reference only to the conduct of the business of the Des Moines Gas Company?

A. So far as I know I would say yes.

Q. Now the other book, what is the name of that?

2086 A. The Capital City Gas Light Company No. 2 Stockholders' and Directors' Minutes.

Q. You referred to certain pages on that one?

A. Yes, sir.

Q. Upon which is written a record of the meetings, minutes of the meetings, of the directors' and stockholders' meetings covering the transfer of the Des Moines Gas Light Company's property to the Des Moines Gas Company?

A. Yes, sir.

Q. What do the other pages of that book contain?

A. Just the minutes of the regular meetings of the stockholders and directors of the company in relation to the conduct of the business, and there may be some special meetings in it.

Q. I said Des Moines Gas Light, I meant the Capital City Gas Company.

A. This book that you last referred to is the book of the Capital City Gas Light Company.

Q. As I understand your last answer, the pages to which you have so far not referred to as showing what was done in the way of the transfer of the property, simply have the minutes of the meetings of the directors and stockholders of the Capital City Gas Light Company in connection with the conduct of its business here in Des Moines in the manufacture and sale of gas, is that right?

A. Yes, that is correct so far as I know.

Q. Now, with that explanation, I am going to leave the books for a minute—have you got these reports I inquired about?

A. I have 26 of them, as the 26 monthly reports, but I did not understand your question as asking for them for a series of months.

Q. I asked for September, October, November and December of 1910.

2087 A. Well I simply have the form on which the report is made; if you want the report we can produce the report. I thought you wanted the form of the report.

Q. I wanted those, 1, 2, 3, 4, the last reports for 1910.

A. Of course, your honor, that means there are some 75 of these reports to make up and copy.

Q. Oh, no; four months I want.

A. Well, there is 26 for each month.

Judge CARR: You are calling for the reports sent to Philadelphia.

Mr. BYERS: Yes, I understood Mr. Haines to say there was daily reports and monthly reports.

A. There are no daily reports at all.

Q. If you will turn to pages 156 and 157 of the transcript you will

see that I asked for the monthly reports for November—beginning September, October, November and December 1910.

A. I have here just what I said, 26 forms on which these reports are made.

Q. You mean each report is made up of 26 separate reports?

A. Yes, sir; there is no monthly report in the sense of collective monthly reports, but these reports are made up as the information comes to the office from the various departments and is taken off the books and sent in to the office of the United Gas Improvement Company in Philadelphia.

Q. Now, if it will lighten the burden any, if you will get me only one, say for September 1910, as you send that in.

A. I haven't got that report. We would have to make a copy from our books of that report. We can do it, but of course it would probably be four or five days' work of an expert book keeper to do it. Your own bookkeepers can make it up the same way.

Q. The original is in existence?

2088 A. Yes, I presume it is in the files in Philadelphia.

Q. Right at that point, will you furnish the Master a transcript of the books and record of the United Gas Improvement Company in so far as it applies to the Des Moines Gas Company here?

A. I'd be glad if I had them; but I haven't got them.

Q. You say that this material is at the Philadelphia office?

A. I say your own bookkeepers can make it up just exactly the — as ours can, right here from our records. It is purely a matter of arithmetic, the bookkeeping forms are all here and all you have to do is to take it off the books.

Q. I don't question your word about it, but I don't know how they can do it without some direction and instruction from you.

A. The forms are almost self-explanatory; any expert bookkeeper can understand them.

The MASTER: You don't retain a copy?

A. We do of some and not of others.

The MASTER: You haven't a copy of it?

A. I didn't bring any copies over because I understood the request called for the form on which they are made out.

The MASTER: Have you got any copy?

A. I have some of them.

Q. Didn't you tell me the other day in your examination you had copies of these reports in your office?

A. Not all of them.

Q. But the ones I asked you about?

A. You asked me for all of them.

Q. Now I ask you for September, October, November and December, 1910.

A. As I stated, we have some of them.

Q. If you have the 26 of any one of those months, I would like to have you produce them.

2089 A. You understand these reports are taken right from our books and the report itself is made out on a special form for convenience in checking and for convenience in finding the

various functions the different departments are interested in. These reports are made up with that idea in view and sent down to the Philadelphia office.

Q. Do you keep an account with the U. G. I.?

A. What kind of an account?

Q. Any kind?

A. Yes, certainly.

Q. Do you keep a separate set of books covering your accounts with the U. G. I.

A. What do you mean by separate set of books?

Q. Just what the question states.

A. Do you mean a duplicate set of books?

Q. I mean a separate set of books from the books you keep showing the business of the Des Moines Gas Company?

A. Certainly not; what would be the object in it.

Q. I don't know.

The MASTER: He simply want- to know whether that is the case or not.

A. No.

Q. Do the books of the Des Moines Gas Company kept up here in the office show the transactions between the U. G. I. and the Des Moines Gas Company?

A. Absolutely.

Q. All of them?

A. They couldn't show anything else.

Q. Then you make reports, complete monthly reports to the U. G. I. of the business?

2090 A. Yes.

Q. That is what I want; I don't care anything about those 26 separate ones.

A. But that complete monthly report is made up in this form.

Q. I don't care what form; that is what I want, one of those complete reports.

A. Those various transactions are reported on different sheets, the sales, manufacturing results, outstanding accounts, disbursement sheets, journal entries, are all made on these sheets as they go on the books during the month. Those reports are made out and sent to Philadelphia for their own examination and to keep them advised of the operations of the local company. But there is no general monthly report in the sense of a large collective report made.

Q. Do you make an annual report?

A. No, sir; not any more than this.

Q. You will furnish us at your convenience a complete month, I don't care which one of those four it is, as you have it here in the copy?

A. All right.

Q. Now, the estimate you say you made out for last year?

A. Yes, sir.

Q. You say you have it here?

A. I have here the annual estimate of the expenditures required for the year 1911, showing the actual increase in sales up to the

period which this estimate is made, and my estimated increase of the capacity of the plant and the various component parts of the plant, and an estimate of the requirements necessary for the year 1911, in order to keep the plant up and in condition, and to provide extensions and improvements necessary with an estimate of
2091 the cost of the labor and material needed to complete these extensions and improvements. It also contains my letter under date of April 8th to Mr. Rollin Norris who is the superintendent of works of the United Gas Improvement Company and a director of the Des Moines Gas Company, and my recommendations contained in this letter in regard to certain items of improvements required for the plant of the Des Moines Gas Company. This annual estimate is made up of a large correspondence we would be glad to have you, if you wish to do so, examine, or offer in evidence the whole correspondence, and it is so built up together it is difficult to withhold any portion of the correspondence and make the balance of it perfectly clear.

The MASTER: It is a sort of talking the matter over?

A. Yes, sir; correspondence on each item of improvement to determine what is to be done definitely. In addition to that is my annual estimate contained in the letter to Mr. Rollin Norris under date of September 1st.

(Said annual estimate is marked by the reporter as Defendant's Exhibit 18.)

Q. Now, just one thing further—

A. That is not a complete estimate; if you want to know—

Q. That is what you produce as an estimate?

A. I have some more here, which is a copy of my letter making recommendations to the engineering department of the United Gas Improvement Company.

Q. Is it all in the package?

A. Yes.

Q. You can tack it all together in one exhibit?

A. Yes.

2092 Mr. BYERS: The reporter will attach that to Exhibit 18.

The WITNESS: I mentioned Mr. Rollin Norris as a director of this company. I want to correct that mistake. Mr. Rollin Norris is not a director of the company, but it is sent to him for Walton Clark, Second Vice President, who is a director and officer of this company.

Q. There is just one thing further I want to inquire about; do you have at this time any contract between the Des Moines Gas Company and the United Gas Improvement Company with respect to the business here in Des Moines?

A. What nature of contract?

Q. Any nature?

A. That is rather broad, General.

Q. Well, have you any contracts of any kind with respect to the business here in Des Moines?

A. If you could suggest some line of thought on the matter it

would make it more simple for me; I don't understand what you mean to get at.

Q. Do you think of any contracts you have with them?

A. I don't happen to think of any at the present time.

Re-direct examination by Judge CARR:

Q. Mr. Haines, can you state about what has been the percentage of increase in the sale of gas in Des Moines, during, say the last six or seven months, as compared with the corresponding period of last year?

A. I have prepared a statement of the gas sent out and accounted for for the seven months ended July 31, 1911, for the purpose of comparing with the corresponding period of 1910. This statement shows that the increase for those seven months was 6.14 per cent.

Recross examination by Mr. BYERS:

Q. At what rate do you furnish the Wellsbach people gas?

Objected to on part of complainant as being immaterial.

A. For what purpose?

Q. Any purpose.

A. At a dollar per thousand cubic feet.

Q. Do you furnish them any less rate than that?

A. Not that I ever knew of.

Q. You have a contract that covers the business?

A. I believe we have, yes sir.

Q. Street lighting and park lighting?

A. Not park lighting, no. We have nothing to do with the park lighting. The park lights are all gasoline lights; we only furnish them gas.

Q. What is the lowest rate that you sell gas for here in Des Moines?

A. One dollar per thousand cubic feet.

Q. None of your customers get it for less?

A. No, sir.

Q. So that you get a dollar for every cubic foot of gas, every thousand cubic feet of gas you sell in Des Moines?

A. Yes, sir; if we are able to collect the money.

The MASTER: No rebating?

A. Absolutely none whatever.

Q. So there is no loss on that end; you get a dollar for every thousand cubic feet of gas to the consumers?

A. We get a dollar, if we are able to collect the bill; that is what I understand you to mean.

Q. Now the balance sheet for 1886, do you have that with you?

A. I think it was Mr. Hagenah you asked for that. You did ask me for some figures in regard to the number of miles of mains in 1903 on January 1st.

Q. We have got that information since.

A. That was 88 miles. Also as to the number of meters.

Q. We have got that.

Mr. BYERS: There were a few things Mr. Lea was to do.

Mr. GUERNSEY: He is not here this morning, but he will be back next week.

Judge CARR: You called for the contracts for oil.

Mr. BYERS: Yes, I want those copies.

A. I think you called for the coke contract as well as oil contracts; I have them all here. And this is a copy of the correspondence leading up to and the final contract for oil used for gas making purposes, the contract being dated the 6th of May 1907.

(The contract produced is marked Exhibit 19.)

Answer continued. And the correspondence leading up to and the copy of the contract entered into the purchase of oil, the contract being dated the 14th day of May, 1909.

(Which correspondence and contract is marked Exhibit 20.)

Answer continued. The next is a like contract and correspondence for the purchase of coke, the contract being dated May 27, 1911.

(Which is marked Exhibit 21.)

Q. Now, Mr. Haines, this contract, as I understood you the other day, they were all made by the purchasing agent of the U. G. I. United Gas Improvement Company of Philadelphia, is that right?

A. No, sir; I think that is absolutely wrong. They are made by the purchasing agent of the Des Moines Gas Company who
2095 happens to be the same man as purchasing agent of the United Gas Improvement Company.

Q. They were all made by the man who is purchasing agent for the Des Moines Gas Company and the United Gas Improvement Company of Philadelphia?

A. They are all made by the same man, yes sir.

Q. And the rate stated in the contract is the rate that the company furnished the oil for?

A. Absolutely, yes sir.

Q. You swear to that?

A. Absolutely, yes sir.

The defendants offer in evidence Exhibits 19, 20 and 21 which are as follows:

"DEFENDANT'S EXHIBIT 19.

"PHILADELPHIA, May 31, 1907.

"Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: Replying to your letter of 20th on the subject of routing of oil by Standard Oil Co., would say that Mr. Higgins writes me as follows:

'We would not care to be committed to make all of the oil deliveries over the C., B. & Q. R. R. It is the intention to divide the business as nearly as practicable between the roads entering Des Moines.'

"This is not a very satisfactory reply, but I wish you would advise me a little later what the C., B. & Q. are getting out of the business and I will try to induce Mr. Higgins to increase the tonnage to them.

"The Standard Co. has a way of denying your request and then doing what you want and it may be this will be the outcome of this present case. Of course we are not able to dictate the routing with this company, as you know from our experience with them in the past.

Yours truly,

J. A. PEARSON,
Purchasing Agent.

(Noted June 3, 1906.)
(J. H.)

2096 *"Reply to Letter of 20th, Referring to Oil Contract.*

PHILADELPHIA, May 22, 1907.

Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: Replying to yours of above date and subject, would say I had intended to write you about this matter but had so many of these contracts to close that the point was overlooked.

The C. & G. W. was put in the contract by the Standard Co. as they believed that this was the routing we preferred. The question was not taken up at the time the contract was made because, as a rule, the Standard Co. obliges us in these matters.

I am today writing Mr. Higgins asking him, if his transportation people do not object, to give all your oil business to the C., B. & Q. road. It is barely possible he will want some of this business to go to the Rock Island, but I will do my best to have it all routed by the Q. road in order to cooperate with the arrangements you have made with them.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"(Received May 24, 1907.)
(Noted May 27, 1907.)
(J. H.)"

"May 17, 1907.
Standard Oil Company Contract.

MAY 20, 1907.

Mr. J. A. Pearson, P. A., Philadelphia, Pa.

DEAR SIR: I beg to acknowledge receipt of your letter as above, enclosing oil contract. I note that this contract states that the oil will be delivered in tank cars at Des Moines, Iowa, on the Chicago

Great Western Railroad. I presume that this is intended to give the routing via the Chicago Great Western, but as a matter of fact, we are not on the Chicago Great Western tracks.

I was in hopes that you might swing this routing to the C., B. & Q. in order to hasten the completion of our arrangements with them, but no doubt you had this in mind and adopted the most
2097 advisable contract.

Very truly yours,

— — —, *Manager.*"

J. H./E. D.

"PHILADELPHIA, May 17, 1907.

"Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: Enclosed is copy of contract with Standard Oil Co. for your supply of gas oil for one year from June 1.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"Agreement made this 6th day of May, A. D. 1907, between the Standard Oil Company of New York, a corporation organized under the laws of the state of New York, party of the first part, and Des Moines Gas Company, Des Moines, Iowa, party of the second part, witnesseth:

In consideration of the mutuality hereof it is hereby agreed between the parties hereto as follows:

1. The party of the first part sells and agrees to deliver to the party of the second part the number of gallons of gas oil, 28 to 34 gravity, the second party shall use in the manufacture of gas in its plant during the contract period beginning June 1st, 1907, and ending May 31st, 1908, such supply to be One Million Eight Hundred Fifty Thousand (1,850,000) gallons, 10% more or less.

2. The party of the second part agrees to receive the gas oil defined in section 1 at and for the price of Four and Fifty-five Hundredths (4.55) cents per gallon delivered in tank cars at Des Moines, Iowa, on the C. & G. W. R. R.; such deliveries to be made as the business of the second party may require and as they in writing order, but not less than one tank car at any one time.

This Agreement is understood to cover the liquid gas making material that will be required for use in the plant of the said party of the second part during the period embraced in this agreement, but total deliveries for the year shall not exceed the quantity above specified.

The party of the first part agrees that there will be no unusual or unnecessary detention in the shipment of the oil herein
2098 mentioned, but said party shall not be held responsible for accidents or unavoidable delays in the delivery of same.

It is agreed between the parties hereto that prompt unloading of the cars shall be within forty-eight (48) hours (Sundays and legal holidays excluded) after its delivery hereunder to the party of the second part.

It is agreed between the parties hereto that the payments shall be made in cash, monthly, on invoices of the preceding month, interest at six (6) per cent thereafter, funds current in New York.

In witness whereof, the parties hereto have executed this agreement the day and date first written herein.

STANDARD OIL COMPANY OF NEW YORK,

By ———, *Manager Naphtha Department.*

DES MOINES GAS COMPANY,

By ———, *Purchasing Agent.*"

DEFENDANT'S EXHIBIT 20.

"Agreement made this 14th day of May, A. D. 1909, between the Standard Oil Company of New York, a corporation organized under the laws of the state of New York, party of the first part, and Des Moines Gas Company, Des Moines, Iowa, party of the second part, witnesseth:

In consideration of the mutuality hereof, it is hereby agreed between the parties hereto as follows:

1. The party of the first part sells and agrees to deliver to the party of the second part its successors or assigns, the number of gallons of gas oil, 28 to 34 gravity the second party shall use in the manufacture of gas in its plant during the contract period beginning June 1, 1909, and ending when full quantity is taken such supply to be Seven Million Five Hundred Ninety Thousand (7,590,000) gallons. This quantity is expected to cover three years' supply.

2. The party of the second part agrees to receive the gas oil defined in section one at and for the price of Two and Eight-tenths (2.80) cents per gallon delivered in tank cars at Des Moines, Iowa, on the C. & G. W. R. R.; such deliveries to be made as the business of the second party may require and as they in writing order, but not less than one tank car at any one time.

This agreement is understood to cover the liquid gas making material that will be required for use in the plant of the said party of the second part continuously until the full quantity is taken but total deliveries shall not exceed the quantity above specified.

The party of the first part agrees that there will be no unusual or unnecessary detention in the shipment of the oil herein mentioned, but said party shall not be held responsible for accidents or unavoidable delays in the delivery of same.

It is agreed between the parties hereto that prompt unloading of the cars shall be within forty-eight (48) hours (Sundays and legal holidays excluded) after its delivery hereunder to the party of the second part.

It is agreed between the parties hereto that payments shall be made in cash, thirty days after date of invoice, interest at six (6) per cent thereafter, funds current in New York.

In witness whereof, the parties hereto have executed this agreement the day and date first written herein.

STANDARD OIL COMPANY OF NEW YORK,
By ———, *Manager Naphtha Department.*
DES MOINES GAS COMPANY,
By ———."

NOTE.—With due notice to the buyer it is optional with the seller to deliver crude oil of suitable quality in lieu of gas oil during any portion of the contract period.

"PHILADELPHIA, May 13, 1908.

"Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: I enclose, for your information, copy of oil contract closed with Sun Co. for your supply of Illinois crude oil from June 1, 1908.

2100 The Sun Co. ask me to advise you to send shipping direction to C. W. Pittinger, Agent, Sun Co. Robinson, Ill.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"Received May 15, 1908.

Noted May 15, 1908.

J. H."

"Agreement made this 6th day of May, A. D. 1908, between the Sun Company, a corporation existing under the laws of the state of New Jersey, party of the first part, and Des Moines Gas Company, of Des Moines, Iowa, party of the second part, witnesseth:

In consideration of the mutuality hereof it is hereby agreed between the parties hereto as follows:

1. The party of the first part sells and agrees to deliver to the party of the second part, or its assigns, and the party of the second part agrees to purchase and receive from the party of the first part, Two Million, One Hundred and Thirty Thousand (2,130,000) gallons, 10% more or less, of crude oil from the Illinois field, to be required for manufacture into gas at the gas works of the party of the second part, during the contract period beginning June 1, 1908, and ending May 31, 1909, at the price of Three and Ten Hundredths- (#.10) cents per gallon, f. o. b. cars at the gas works Des Moines, Iowa.

2. The party of the second part agrees to pay for all the crude oil as defined in section 1, monthly on the invoices of the preceding month, deliveries to be made as hereinafter set forth.

3. The party of the first part agrees that during the period of this agreement, deliveries shall be made as the superintendent of the party of the second part may in writing order, but in no case shall less than one tank car be ordered at any one time.

In witness whereof the said parties have executed this agreement the day and date first written herein.

SUN COMPANY,
 ———, *President.*
 DES MOINES GAS COMPANY,
 By ———, *Purchasing Agent.*

2101 "May 1, 1908.
 Oil Contract—1908.
 See File #19—5-5-1908.

MAY 5, 1908.

Mr. J. A. Pearson, P. A., Philadelphia, Pa.

DEAR SIR: I beg to acknowledge receipt of your letter as above and note that the new oil contract from June 1st, is with the Sun Oil Company, for Illinois Crude Oil at 3.1¢ per gallon, delivered here. I am very much pleased to note this price. It is the first ray of sunshine I have seen in a long time.

Very truly yours,

———, *Manager.*"

J. H./E. D.

"PHILADELPHIA, May 1, 1908.

Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: I have your letter of April 28th on the subject of oil, and in reply would say you will probably be pleased to know that I have made your new contract from June 1, with Sun Oil Co. for Illinois crude oil, at 3.1¢ per gallon, delivered f. o. b. Des Moines.

Mr. Norris considers that this Illinois Crude is better for gas making than gas oil such as we have received in the past.

I will send you copy of formal contract as soon as it is executed.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"Received May 4, 1908."

2102 "April 20, 1908.
 Oil.

APRIL 28, -8.

Mr. J. A. Pearson, P. A., Philadelphia, Pa.

DEAR SIR: I had a visit today from Mr. P. D. Schall, General Manager, Kansas City Oil Company, Kansas City, Mo.

Mr. Schall tell- me that he is refining a superior grade of oil, but that the output of his company, at the present time, is only about 20 cars a month and that they have about 50 tank cars. He tells me that they are increasing their business and will probably be able to make us a bid on our oil contract next year. I suggested his getting into communication with Burlington and Sioux City as these towns are more nearly his size than Des Moines. He, at present, is selling to the Boone Gas Company, at 4½¢ f. o. b. Boone, but tells

me that he could make us a better price if he could supply the demand.

Very truly yours,

J. H./E. D.

— — —, *Manager.*

"Reply to Letter of 15th, Referring to Oil.

PHILADELPHIA, *April 20, 1908.*

Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: I have yours of above date and subject and in reply would say that I anticipate we will get a considerable better price for next year than the one we are at present paying.

I do not know just what you mean by the "opportunities which apparently present themselves for lower prices," but perhaps you have some locally, and if so, I would be glad to get the benefit of them.

Mr. Kellogg recently wrote me about the Webster Refining Co. offering him a pretty low price for next year's business. It is possible something of this sort has come before you.

I have always felt we must give our oil business to a concern who could take care of it, although I am perfectly willing to use these small fellows to get a low price for you. So far the only oil companies who have been able to make us satisfactory arrangements were the Standard and Sun Companies. There are one or two other concerns, such as the National Refining Co. at Cleveland and the Indian Refining Co. in Kentucky, but the first named company has always named too high a figure and the Indian Co., I understand, do not keep their contracts.

I think you can safely count on getting good deal better prices,—perhaps a cent a gallon,—than last year, for the coming contract period, and, as I said before, if you have any suggestion or local prices, I should be more than glad to hear from you.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"Received April 22, 1908."

"Oil.

APRIL 15, '8.

"Mr. J. A. Pearson, P. A., Philadelphia, Pa.

DEAR SIR: Kindly advise me what you anticipate in the way of oil prices for next year's contract. It seems to me that Des Moines has been paying abnormally high prices for its oil, compared with some of the opportunities which apparently present themselves for lower prices.

Do not think that I do not appreciate your desire to give us the best you can. At the same time I also appreciate that you are handicapped in some ways in your position of purchasing such large quantities from such a limited selection of producers.

Please give me your views on this subject at your earliest convenience, and oblige,

Yours very truly,

— — —, *Manager.*"

J. H./E. D.

DEFENDANT'S EXHIBIT 21.

"Postal Telegraph. Commercial Cables.

Telegram.

JUNE 9, 1911.

"Mr. J. A. Pearson, Broad and Arch Streets, Philadelphia, Pa.:
2104 Please wire parties with whom you placed coke contract to commence shipments immediately. We have not received notice of shipment since twenty-ninth ultimo.

JANSEN HAINES."

"Confirmation of Telegram.

PHILADELPHIA, June 10, 1911.

Pickands, Brown & Co., Colby-Abbot Building, Milwaukee, Wis.:

Our Des Moines Manager advises he has had no shipments of coke since twenty-ninth ultimo. Start shipments to him at once.

J. A. PEARSON,
Purchasing Agent."

"Received June 14, 1911."
Des Moines a/c 10:15."

"PHILADELPHIA, June 12, 1911.

"Mr. Jansen Haines, Manager, Des Moines, Ia.

DEAR SIR: Your telegram of 9th was duly received and I enclose you confirmation of telegram I sent to Pickands, Brown & Co.

Please let me know if you have any further trouble in getting coke shipments.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"Received June 14, 1911."

"PHILADELPHIA, June 23, 1911.

"Mr. Jansen Haines, Manager, Des Moines, Iowa.

DEAR SIR: I enclose for your information copy of contract with Pickands, Brown & Co., for your supply of generator fuel for the year ending June 1, 1912.

Please send your orders to them direct,—Colby-Abbot Building, Milwaukee, Wis.,—as your necessities arise.

Yours truly,

J. A. PEARSON,
Purchasing Agent."

"Received June 26, 1911."

Noted June 26, 1911.

J. H."

1466 DES MOINES GAS CO. VS. CITY OF DES MOINES ET AL.

2105 "Pickands, Brown & Co., Chicago.

Contract for Milwaukee Solvay Run-of-Oven Coke.

MILWAUKEE, WIS., May 27th, 1911.

- | | |
|--------------------------|--|
| 1. Party of First Part. | The Milwaukee Coke and Gas Company, Milwaukee, Wis. By Pickands, Brown & Company, Agents, Chicago, Ill. Agreeing to sell. |
| 2. Party of Second Part. | Des Moines Gas Company, Des Moines, Iowa. Agreeing to buy. |
| 3. Quantity. | Ninety-five hundred (95) tons, 10% more or less for delivery in about equal monthly quantities during the contract period. |
| 4. Quality. | Milwaukee Solvay Run-of-Oven Coke. |
| 5. Delivery. | F. O. B. cars Milwaukee. |
| 6. Duration of Contract. | From June 1st, 1911, to June 1st, 1912. |
| 7. Weights. | Western Railway Weighing Association weights at ovens to govern settlements; 2,000 pounds to constitute one ton of coke. |
| 8. Price. | Four and no/100 Dollars (\$4.00) per ton. |
| 9. Terms. | Cash on the 15th of the month for all coke shipped the month preceding (freight cash). Payable in New York or Chicago Exchange. |
| 10. Conditions. | Party of the first part not to be held in damages for failure to furnish coke, as aforesaid, on account of car shortages, railroad delays, strikes, trouble with workmen, accidents, or other causes beyond its control. Each month's shipments to be treated and considered as a separate and independent contract. |

Made and entered into the date first above written as witness our hands.

Signed in duplicate.

Copy.

THE MILWAUKEE COKE & GAS COMPANY,
By PICKANDS, BROWN & COMPANY, *Agents*,
By H. J. SCHLESINGER,
Sales Manager, Milwaukee Office.
DES MOINES GAS COMPANY,
J. A. PEARSON, *Pur. Agent.*"

2106 Cross-examination of the witness HAINES continued:

Q. Is this man who did the purchasing of the coke and oil, J. A. Pearson, the purchasing agent?

A. Yes, sir.

Q. I have here in connection with this Exhibit 21 a sheet on which the following appears: "Confirmation of Telegram, Purchasing Department United Gas Improvement Company. Philadelphia, June 10, 1911. Pickands, Brown & Co., Colby Abbot Building, Milwaukee, Wisconsin. Our Des Moines Manager advises he has had no shipments of coke since twenty-ninth ultimo. Start shipments to him at once. J. A. Pearson, Purchasing Agent. Des Moines a/c 10.15 Received June 14, 1911." That was in connection with a shipment of coke, wasn't it, to this plant here?

A. Yes, sir; I wrote to Mr. Pearson and told him we were not re- the shipment of coke.

Q. You telegraphed him, here is what you did: "June 9, 1911. J. A. Pearson, Broad & Arch Streets, Philadelphia, Pa. Please wire parties with whom you placed coke contract to commence shipments immediately. We have not received notice of shipment since 29th ultimo." That is the man you refer to as the Purchasing Agent of both concerns?

A. Yes, sir.

Judge CARR: With the reservation spoken of yesterday, I think this is our evidence, so far as our evidence in chief is concerned.

Mr. BYERS: There were some matters Mr. Lea promised to furnish me.

Mr. GUERNSEY: I told him last night to go home and straighten things out in his office. I suppose it had been forgotten, but he will be back in a few days.

2107 Mr. BRENNAN: We want the balance sheet which he says was furnished him by the company, or the one from which he made his analysis.

Witness excused.

WILLIAM J. HAGENAH, re-called for further cross examination, examined by Mr. Brennan, testified:

Q. Do you have in mind the request made yesterday with respect to certain balance sheets and other records?

A. Yes, sir. You requested a number of items and I tried to get all you asked for, as far as I possibly could in the time at my disposal. You asked for the balance sheets from 1900 to 1910. The balance sheet for 1910, December 31, of that year, is in my report Exhibit 23, and here are the balance sheets for the nine preceding years, completing the ten year period on that. You asked for a statement of the real estate cost as appearing on the company's books.

Mr. BRENNAN: The witness has produced what purports to be an analysis of the real estate account as shown by the books of the com-

pany which the defendants ask to be marked Exhibit 22. It occurred to me that the witness may state upon the record what he has produced and state what years it is for, since our time now is somewhat limited.

A. I was asked to produce the balance sheets from the year 1900 to 1910. The balance sheet for 1910 ending December 31, is in my report, Exhibit 23. I offer the other nine balance sheets for the preceding nine years, which with the one in my report, 2108 cover the ten years called for.

Q. In reference to Exhibit 22, I see you have noted at the bottom the following: "This does not include land taken over at the time of the organization of the Des Moines Gas Company."

A. That is a part of that item of \$285,000 which was paid for in bonds, consequently there is no voucher item or classification of it.

Q. Exhibit 22 shows the actual book cost of the real estate?

A. Exactly, the ledger analysis.

Q. What else have you?

A. You also asked for an analysis of the bond discount item to show the discounts on each specific sale of bonds. I offer an analysis of the bond account covering the life of the Capital City Gas Light Company and the Des Moines Gas Company down to the close of the calendar year 1910, showing such details. I was also asked to produce the balance sheet for the year 1886, that would be from the ledger which I have been unable to trace; the 1886 ledger was not offered to me in connection with my cost analysis and could not be provided. I have, however, taken the trial balance from the ledger of 1887 and by checking the charges and construction during the period covering the work, backwards, to the year 1886, I find the ledger for 1887 and the construction account as checked back for the actual charges for the year 1886, check exactly with the cost as shown in my report, schedule 1, Exhibit B.

Q. You have not produced your analysis of the overhead charges, for the reason as explained by you on yesterday, that the company made no charges on its books?

A. There are no charges for that purpose.

Q. If there are any charges of that character, they are 2109 included in operating expenses?

A. Yes, sir; that is, there are no capital charges. In connection with these balance sheets for the last ten years, the request was made yesterday they be made in such shape that the working capital could be analyzed. In order to do that it would take several weeks' work. I have taken the average working capital shown in the last five years excluding 1911, and the average, not taking into account the growth of the company for that period, shows \$196,348.82 for the last five years; that is, the five year period ending with 1910.

Q. Now, Exhibit 22 refers to certain special assessments or improvements made in the way of curbing and paving?

A. Yes, sir.

Q. Those were improvements that were made by the city of Des Moines and assessments made against the property therefor?

A. Yes, sir; and the company reimbursed the city for such expenditure; I believe that is the way it is done here.

Q. You do not understand that the company outside of any resolution of necessity or assessment made by the city, made these improvements?

A. I have no knowledge of that other than what appears on the company's books from which that exhibit is taken.

Excused.

Complainant rests.

At this time an adjournment was taken until 9:30 a. m. August 14th, 1911.

2110

Monday Forenoon Session.

AUGUST 14, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Defendants' Testimony.

A. O. HAUGE, being first duly sworn on part of defendants, examined in chief by R. O. Brennan, Esq., testified as follows:

Q. Where is your residence?

A. East Des Moines.

Q. How long have you lived in Des Moines, Mr. Hauge?

A. Nearly nine years.

Q. What is your business?

A. Banking business and real estate.

Q. With what bank are you connected?

A. With the Iowa Trust & Savings Bank.

Q. What official position do you hold in the Iowa Trust & Savings Bank?

A. I am cashier.

Q. How long have you been cashier of that bank?

A. Five years.

Q. Prior to engaging in the banking business what other business have you followed, or did you follow?

A. I was cashier in the State Treasurer's office prior to that.

Q. For what length of time?

A. About three years.

Q. So that about five years you have been connected with the Iowa Trust & Savings Bank as its cashier and about three years in the State Treasurer's office?

A. Yes, sir.

2111 Q. To what extent, Mr. Hauge, during your residence in Des Moines have you bought and sold real estate either for yourself or for others?

A. I have been dealing in real estate for the last five years all the time.

Q. I will ask you if your position as cashier of the bank requires you to acquaint yourself with the market values of real estate and properties in the city of Des Moines?

A. It does.

Q. And that is by reason and on account of the fact that the bank makes loans from time to time?

A. Yes, sir.

Q. And before the loans are recommended by the board of directors, is some investigation usually made of the condition of the property and its value?

A. Yes, sir.

Q. And under whose supervision are such investigations made?

A. Under my supervision.

Q. Does your experience in real estate and the values of real estate extend over the city generally?

A. Yes, sir; quite generally.

Q. And have you any peculiar experience with reference to East Des Moines?

A. I have more experience in East Des Moines than in any other parts of the city.

Q. Were you asked by counsel for the city in this case to make an examination of the real property of the Des Moines Gas Company?

A. No, sir.

Q. For the purpose of having you make a valuation of the same?

A. No, sir.

2112 Q. When was your attention first called to the real estate of the Des Moines Gas Company?

A. About a month ago, special attention was called to it at that time—about five weeks ago, I should judge.

Q. And did you in pursuance of the request of some one visit the property of the Des Moines Gas Company?

A. I did.

Q. For the purpose of ascertaining its true market value?

A. Yes, sir.

Q. I will ask you Mr. Hauge, if in the course of your business you know what the reasonable market value of real property is in East Des Moines?

A. Yes, I think I know.

Q. What would you say as to whether or not you are acquainted with the reasonable market value of real estate owned by the Des Moines Gas Company in East Des Moines where its manufacturing plant is located?

A. I am.

Q. I mean exclusive of any buildings thereon?

A. Yes, I don't know anything about the buildings.

Q. But you do know what the real estate is worth exclusive of the buildings?

A. Yes, sir.

Q. Now, I first call your attention, Mr. Hauge, to Lots 9 and 10

in Block C of Scott & Dean's Addition, being the lots abutting upon East Second Street, Lot 10 running the long way on Market Street?

A. That has frontage on the K. D.

Q. Yes. Have you examined those lots to which I have called your attention?

A. Yes, sir.

Q. You may state what in your judgment was the reasonable market value of those lots say on or about January 1, 1911?

A. I should say \$10,000.

Mr. READ: For the two?

A. For the two lots, yes.

Mr. BRENNAN: I show you a plat which is marked Exhibit 5 in this case, I believe, and call your attention to Lots 9 and 10 in Block M, and you will please state what in your judgment was the reasonable value of the two lots in Block M, to which I have called your attention on or about January 1, 1911?

A. \$6,000.00.

Q. I wish now to call your attention to Lots 9 and 10 in Block B Scott & Dean's Addition shown upon this plat, Exhibit 5, and please state what in your judgment was the reasonable market value of those lots at or about the time to which your attention has been called?

A. \$8,500.00.

Q. I will call your attention to Lots 3, 4, 5, 6, 7 and 8 in Block B Scott & Dean's Addition; please tell the Master what in your judgment was the value of those lots?

A. Of all those lots?

Q. Yes.

A. \$22,000.00.

Q. I call your attention Mr. Hauge to lots 1, 2, 3, 9 and 10 in Block C, Scott & Dean's Addition——

A. We started with 9 and 10.

Q. I want you to put a valuation on the five lots; tell the Master what in your judgment was the reasonable market value of the five lots to which your attention is called?

2114 A. \$20,000.00.

Q. In the same block, C, I call your attention to Lots 4, 5, 6, 7, & 8; please state what in your judgment was the reasonable market value of those lots?

A. \$25,000.00.

Q. Did you place a valuation upon Lots 3 and 4 in Block K, Scott & Dean's Addition?

A. Yes, sir.

Q. Will you please state what in your judgment was the reasonable market value of Lots 3 and 4 in Block K.

A. \$12,000.00.

Q. I notice on this plat, Exhibit 5, five lots in Block T known as Lots 3, 4, 5, 6 and 7, fronting upon East First Street and adjacent to the Des Moines river; did you make a valuation of those lots?

A. Yes, sir.

Q. Please tell the Master, Mr. Hauge, what in your judgment was

the reasonable market value of Lots 3, 4, 5, 6 and 7 in Block T, Scott & Dean's Addition at or about January 1st, 1911?

A. That makes five lots there.

Q. Yes; 3, 4, 5, 6 and 7?

A. \$3,500.00.

Q. Now, Mr. Hauge, it is a mere matter of adding up the figures you have given, but I would like to have you state upon the record what the aggregate total amount of your valuation is of the real estate of the Des Moines Gas Company to which I have called your attention?

A. \$97,000.00.

Q. And that you tell the Master to be in your judgment the reasonable market value of this property exclusive of buildings
2115 and improvements?

A. Yes, sir.

Cross-examination by W. L. READ, Esq.:

Q. Prior to engaging in business with the bank, you had had no experience in real estate in Des Moines, had you?

A. Some.

Q. How much?

A. Just individually, was all. What I purchased myself.

Q. That was where, and what character of property?

A. Residence property.

Q. Out on the east side?

A. No, the west side.

Q. What part of the west side?

A. Over near Forty-second street.

Q. How many properties?

A. Three.

Q. Improved properties or vacant properties?

A. Those were vacant properties at the time.

Q. What is the capitalization of your bank?

A. Fifty thousand dollars.

Q. You are conducting a regular banking business?

A. Yes, sir.

Q. And your time is chiefly engaged in that?

A. Yes, sir.

Q. To what extent do you make loans on real estate?

A. Well, all we are able to in our business.

Q. I know, but to what extent, what volume?

A. Well, we make, I should say forty per cent of our
2116 loans are real estate loans.

Q. What would forty per cent amount to per year?

A. From \$200,000 to \$250,000; that is the total amount.

Q. Forty per cent of that would cover the real estate loans?

A. No, the total amount of loans would be between \$500,000
and \$600,000.

Q. On what character of real estate are your loans made upon?

A. On all kinds of real estate.

Q. Chiefly what kind?

A. Chiefly in the city.

Q. On residence property?

A. Both residence and business.

Q. You make any farm loans?

A. Some.

Q. The bulk of your loans are on residence property?

A. No, sir.

Q. The bulk are on business property?

A. No, sir.

Q. Upon what?

A. I think they are pretty evenly divided between residence and estate loans.

Q. Aside from your commercial loans the bulk of the real estate loans are on residence property?

A. I think they are pretty evenly divided between residence and business; I wouldn't be able to say positively.

Q. Have you made any loans within the district, say south of Court Avenue and west of Fifth Street and the river?

A. South of Court?

Q. South of Court?

A. I wouldn't say positive about that; I haven't made
2117 any south of the tracks; I may have made south of Court,
I wouldn't say positively.

Q. Have you now any recollection ever having made a loan in that district?

A. No, I have not.

Q. Have you ever had any experience in handling property in that district in East Des Moines?

A. Yes, sir.

Q. In the district south of Court Avenue, west of Fifth street, between that and the river and north of Elm Street?

A. We have had property listed but never bought or sold any.

Q. You never bought or sold property in that district?

A. No, sir.

Q. What is your realty firm?

A. The Union Realty Company.

Q. How long has that been organized?

A. About two years.

Q. And is engaged in handling that kind of property?

A. It has a residence tract of its own and handles property for others.

Q. Its business is chiefly the exploitation of residence tracts?

A. Ground, so far as its holdings are concerned.

Q. Have you or your company ever been interested in handling business property in West Des Moines?

A. I don't think we ever sold or bought in West Des Moines.

Q. To what extent have you bought or sold business property in East Des Moines.

A. We sold a few and bought some.

Q. Well, where have your sales been?

A. Personally, I bought some in East Des Moines on Locust street.

2118 Q. Did the company buy or sell any?

A. No, sir.

Q. You personally bought some on Locust Street?

A. Yes, sir.

Q. Where on Locust Street?

A. Between Second and Third.

Q. How recently?

A. I think it is 1908—I am not positive as to that.

Q. What were the character of the properties?

A. They were vacant lots when I got them.

Q. What size lots?

A. 22 by 132, I think.

Q. How many lots?

A. Two of them.

Q. There has been quite a marked advance in properties along on Locust street, hasn't there?

A. Yes, there has.

Q. Also on Walnut Street?

A. Not so much.

Q. Also on Court Avenue?

A. No, not so much as Locust.

Q. There has been quite a marked advance on First, Second and Third, between Court Avenue and Locust Street, along in there?

A. Yes, since it was cleaned up, yes a marked advance in that property.

Q. There have been some improvements over there that have had a marked effect on the advance in the prices, isn't that true?

A. Yes, sir.

Q. What improvements are those?

A. The City Hall, the Locust street bridge and the raising of the grade of Locust Street.

2119 Q. The Coliseum?

A. Yes, sir.

Q. The Park on the East side?

A. Yes, sir.

Q. The new Walnut Street bridge is also a factor?

A. That will be a factor.

Q. Recently there has been some improvements projected in the way of a switch between Court Avenue and Vine?

A. I don't know about that; I think that was while I was away.

Q. You don't know anything about that?

A. I don't know anything about that.

Q. Now, those few lots on Locust Street are all that you ever bought in East Des Moines?

A. Yes, sir—not in East Des Moines—all the business lots.

Q. Have you been interested or acted as agent in selling any property in East Des Moines?

A. Yes.

Q. How many and what properties?

A. I sold two corners on Grand Avenue and Fifth Street.

Q. Anything else?

A. I can't recall it now; I am quite sure I have sold others; not on the spur of the moment, I don't recall any; I may later on.

Q. Are you acquainted with values in West Des Moines?

A. I think so, from observation and keeping in close touch.

Q. Out on Mulberry Street, at Seventh and Eighth, what are properties worth out there?

A. A good deal more than in East Des Moines.

Q. Well, how much?

A. Seventh, you say, and Mulberry?

Q. Yes, and south; take the Scheuerman Brothers' property, what is that property worth?

A. I don't know how much ground there is; I never was down there.

Q. It is a quarter block there.

A. That is on the Rock Island, is it?

Q. I believe it is, it is trackage property.

A. I am not sure where that is.

Q. Do you know the values of any of these properties in and around that vicinity?

A. I know what the Ellingson property sold for.

Q. That was a bargain counter affair?

A. I don't know anything about that.

Q. You just know what it sold for?

A. Yes.

Q. Do you know the property?

A. Yes, I have been in and through that.

Q. When did it sell?

A. Well, it wasn't very long ago.

Q. How long ago?

A. I think within the last year.

Q. How much property was there?

A. I think that was a quarter block.

Q. Where is it?

A. Right over in here. (Indicating on the map.)

Q. On what street?

A. What track?

Q. What track and what street—that is Seventh Street in fact?

A. I think it is Seventh Street.

Q. Seventh Street and nearly down as far as Tuttle, isn't it?

A. It is down on the tracks.

Q. It isn't on the Rock Island; it is south of Elm Street, isn't it?

2121 A. I don't think so.

Q. Well, where is it?

A. I would say it was Vine Street, to the best of my recollection.

Q. Do you know what that sold for?

A. Yes.

Q. You don't know whether that was its fair market price or not?

A. I should say it was a fair price.

Q. Do you know whether it was its fair market price or not?

A. Yes, I would say it was the fair market price.

Q. You don't know anything about any of these other properties, the Scheuerman quarter block or the quarter block across the street?

A. No, I wouldn't attempt to place a value on them without inspection for that purpose.

Q. By looking at it would you venture an expression?

A. Yes, I would be willing to give you my opinion.

Q. What do you imagine the property where the Browne-Camp Hardware Company are located is worth down here?

A. On Court Avenue and First?

Q. Where their wholesale house is?

A. Well, I wouldn't place a value on that without inspection; I never was over the ground.

Q. What do you imagine the Warfield Grocery Company property is worth across the street south of Brown-Camp Hardware?

A. Faces on front?

Q. It has some, call it front and Court?

A. How much of it is there?

Q. 132 feet; how much by the foot?

A. Has it got trackage?

Q. Yes.

A. I would figure trackage there worth from \$200 to \$300 a front foot; I would have to be indefinite about that.

Q. From \$200 to \$300 a front foot would leave a margin on it?

A. Yes.

Q. Take the Brown-Camp frontage, how much is that a front foot?

A. That hasn't got trackage.

Q. It has trackage, a switch through there, assume that.

A. That has frontage on Court too?

Q. Yes, it corners on First and Court.

A. Well, I wouldn't care to place a value on that without inspection; I can't recollect right now—

Q. You know where it is?

A. Yes, sir.

Q. As well as you do the Warfield property?

A. Yes, sir.

Q. And is that worth more or less than the Warfield property?

A. If the Warfield property—I haven't got it clear in my mind now—if I had a map I could tell you more about it. I should say if it has Court avenue frontage besides trackage, it is worth a little more.

Q. Maybe this map, Exhibit 6, can help you out some.

A. The Brown-Camp is south of Court, isn't it?

Q. It is on the north side of Court, the corner of Court and First; my inquiry is as to the value per front foot?

A. I should say it would be worth fifty dollars more than the other with the same trackage facilities.

Q. The range would be about where?

A. From \$250 to \$350.

Q. Do you know where the Kratzer Carriage property is?

A. I am not so sure about that either.

Q. Well, it is south of Court Avenue just west of the west bank of the river from the Gas Company property.

A. On Vine Street?

Q. Yes, have you any idea what that is worth?

A. 132 feet depth, is it?

Q. It is trackage property, about the usual width 132 feet?

A. I should say that would be worth from \$200 to \$250 a front foot, somewhere along there.

Q. Going back to the Ellingson property, what is that property worth now?

A. The Ellingson over here on Seventh?

Q. Yes.

A. I would say it would be worth about what it sold for, in that neighborhood.

Q. What do you say it is worth now?

A. Just the ground alone, you mean?

Q. The ground alone.

A. I should say from \$65,000 to \$75,000.

Q. That is a quarter block?

A. That is what I was figuring.

Q. That includes the improvements, does it?

A. No, I was figuring that.

Q. The Ellingson quarter block value now you say is about how much?

A. From \$60,000 to \$70,000; \$60,000.

Q. The Scheuerman property, you don't know where that is?

A. I don't know anything about that.

Q. The Des Moines Ice Company property, do you know where that is?

A. I don't know where that is.

Q. You purchased on East Locust Street in 1908. I think you stated?

A. I think so, I wouldn't say positively.

Q. There has been quite a marked advance since that time?

2124 A. Yes, quite a little.

Q. How much, speaking in percentages?

A. About sixty per cent on Locust Street.

Q. What is the percentage of advance on Walnut Street?

A. About forty on the East side.

Q. Directly your attention to West Locust Street, what has been the advance on West Locust Street from Eighth to the river, in the last five year?

A. It has been more.

Q. How much more?

A. Well, I am not so familiar with that; I wouldn't know off-hand.

Q. What is the general range of values on West Locust Street, say from Eighth Street east to the river?

A. About the average you mean?

Q. No, the range, the maximum and minimum?

A. I would say from \$200 to \$1,000 a front foot.

Q. Where would you locate the \$1,000 a front foot property on Locust Street?

A. About where the Equitable Building is, between Seventh and Fifth in there somewhere; I may be a little high.

Q. How much high do you think that would be?

A. O, I think that is about right.

Q. Let us see, in your judgment property on West Locust Street, say the corner of Sixth Street is about \$1,000 per front foot?

A. That would depend on whether you have a corner or an inside lot.

Q. Take the Equitable property?

A. I should think that would be worth that much.

Q. Now, going east toward the Coliseum, how much a front foot is it down there?

A. That is where I placed the \$200 property.

2125 Q. On West Walnut Street from Eighth east to the river, what is the general range of prices?

A. Well, I should say from \$250 a front foot to \$2,500.

Q. \$2,500 a front foot would be where?

A. The Fleming corner.

Q. The \$200 a front foot would be down by the river?

A. Down by the river; there is no \$200 front foot down by the river. It is improved; we have got the Post office on one side and the Library on the other.

Q. It runs down to that level to the block west of that?

A. Yes, the further west the more valuable.

Q. This property of the Des Moines Gas Company has trackage facilities?

A. Yes, sir.

Q. Do you count that a factor making for value?

A. Yes, sir.

Q. Does it make much difference?

A. Yes, it makes difference to the owner that wants trackage.

Q. Does it make any difference in your estimate; do you call it worth more because of the trackage than without it?

A. No, it wouldn't be worth more as compared with the Fleming Building.

Q. No, not by comparison; is the Gas Company property in your judgment and estimation worth more with trackage than without trackage?

A. Yes, in that location it is.

Q. What do you conceive are the available uses of this property?

A. About all it could be used for is factory purposes, storage purposes, purposes in connection with railroad trackage.

Q. It is adapted for such uses?

A. Yes, I should say it would be.

Q. And rather well adapted, isn't it?

A. All except the lowness of the ground; if it was higher
2126 it would be worth more.

Q. Is the Des Moines Gas Company property subject to overflow?

A. I don't think the overflow ever went over there; it has overflowed around it though, which affects this property, that would be an island.

Q. Where does the overflow come around it, south of it?

A. Yes, it used to overflow north of it.

Q. It is not within the overflow district now north of it, is it?

A. I am not sure whether Walnut would be overflowed under the present conditions or not.

Q. Isn't it true that the overflow ground is south of Elm street?

A. The lowest overflow ground, yes.

Q. Aside from some sink holes is there any overflow ground north of Elm street and west of Fifth street?

A. Since Locust Street has been raised we haven't had any floods; I couldn't say just exactly; I am not an engineer. There was water on Walnut Street during the flood.

Q. Do you regard the Des Moines Gas Company property as being adapted for factory purposes, storage purposes and such like?

A. Yes.

Q. Well adapted?

A. Quite well adapted.

Q. To what extent is the ground over there already appropriated and in use?

A. Well, with buildings on, I don't think there is half of it appropriated.

Q. Will you take the map and point out where there is an unappropriated piece of ground south of Court Avenue and west of Fifth street to the river and North of Elm street?

A. Some of this Gas Company property is really not ap-
2127 propriated very much; they have got a couple of tanks on it.

Q. Well, outside of the Gas Company property?

A. This map only goes to Third street.

Q. Let us consider then what the map shows.

A. There is unappropriated ground over in here (indicating).

Q. What block is that?

A. I couldn't say exactly; east of Third and south of Market. And all of this ground the great part of that ground over there the improvements on it are not of a permanent character; they are shacks a good many of them.

Q. What ground are you talking about when you speak in that way?

A. I am not talking about the Incubator Factory over there, is not a permanent building; the Prouty Soap Works over here has got a building which is pretty fair.

Q. I haven't asked you with respect to the character of the buildings; I have asked you to point out unappropriated ground not in use.

A. I presume it is all being used a little bit; some of it has got scraps of iron on it.

Q. There is an iron concern over there?

A. Yes.

Q. Is there any considerable area over there that is not now in use?

A. Well, I wouldn't positively say about that; they may be used as much as the Gas Company there with one of those oil tanks on it, just a small tank, and that would be in a sense appropriated to a very limited extent.

Q. What tracts are there over there on the market for sale?

A. There is one east of Third and south of Market.

Q. Will you name it, describe the tract?

A. I just looked at the tract.

2128 Q. That is east of Third and south of Market?

A. Yes, sir.

Q. Is that the only one you know of?

A. That is the only one I inquired into.

Q. You do know there is a great deal of ground in there that is appropriated and used for railroad purposes?

A. Yes, sir.

Q. And you do know in a general way most of that ground in the district I have called your attention to is already appropriated and in use, don't you?

A. Well, it is being used, but it is not built up; that is what I have reference to.

Q. You do know there are not any considerable tracts on the market for sale in that district?

A. I don't know of very many, no.

Q. Suppose, Mr. Hauge, you had a customer for two blocks of contiguous trackage property, where would you find it over there?

A. Further east.

Q. How far east?

Q. You can follow the tracks down and find it somewhere.

Q. You could find it if you had to go to Altoona for it?

A. Yes.

Q. Where would you find it in the district I have described south of Court Avenue and west of Fifth or Sixth Street, if you please?

A. I do not believe we could find it all belonging to one person; you would have to buy it up from different parties.

Q. You don't know of any tract so large as that owned by one person or a tract so large as that that is on the market for sale, do you?

A. No, I do not.

2129 Q. Do you know of any such tract in west Des Moines or trackage property, aside from the holdings of the Hubbell Estate?

A. No, sir; I do not.

Q. You couldn't get it in town, could you?

A. Not that I know of unless you go further east.

Q. The truth of the matter is, close in desirable trackage property is a scarce article?

A. Well, it is all owned by somebody and most of them are not very anxious to sell.

Q. I was speaking, aside from the Hubbell holdings, the close inside trackage property is scare, isn't it?

A. Yes.

Q. And there is a good demand for it?

A. Well, I don't know as to the demand; I haven't been asked, I haven't seen very many purchasers.

Q. There is an increasing growth in the manufacturing business in Des Moines?

A. Yes.

Q. Quite a stimulus?

A. There has been the last three or four years.

Q. And the storage business has called for the construction and they have been constructing large warehouses?

A. Yes, sir.

Q. Now, that property of the Gas Company is not far from the post office, is it?

A. No, it is not very far from the post office.

Q. It is really desirable property Mr. Hauge?

A. For the purpose I have described it is.

Q. For the use?

A. It is all right.

Q. Close in?

2130 A. Yes, sir.

Q. Accessible from the paved streets, Walnut Street, Locust Street and Court Avenue a short distance?

A. Yes, sir.

Q. And all in all it is for such use and such purpose a desirable property?

A. Yes, sir.

Q. How long did you spend inspecting the property of the Des Moines Gas Company?

A. The first time I was down there I was down there about a half a day; the second time I was there about two hours and a half to three hours.

Q. Was anyone with you?

A. One time there was.

Q. Who was with you?

A. Frank Mathis, Mr. Walker and Mr. Wilcoxon.

Q. Bye the bye, in placing your appraisal what question did you ask yourself; what did you put the question—what could this lot or this lot or this lot be sold at as a separate lot?

A. I took the quarter blocks; I took them by quarter blocks.

Q. Just as you have given them in your answers?

A. Yes, sir; I wouldn't say positively how I gave them in the answer.

Q. With reference to what assumed or supposed uses did you make the estimate?

A. Oh, general trackage purposes.

Q. Suppose, Mr. Hauge, there were no Gas Company in Des Moines and that the people were projecting the construction of a gas plant and were to come over there and desire, say two blocks of ground within the district I have described, south of Court Avenue

and west of Fifth and Sixth Streets and north of Elm Street,
2131 and they should commission you to buy two blocks in there,
what prices do you suppose you would have to pay for it?

A. I would get it as cheap as I could.

Q. What would be the price?

A. It may be impossible to buy two blocks, if it was owned by
different parties.

Q. If you would pay enough you could get it?

A. Not always; some of the Hubbell tracts are not for sale.

Q. What do you imagine now would be the cost of collecting
under one ownership two blocks of ground contiguously situated
within that territory south of Court Avenue and west of Fifth
Street and north of Elm Street?

A. About \$100,000.

Q. Well, now what property would you get and where would
you get it?

A. I haven't started that job yet.

Q. Start out and point out where it is?

A. I would get the one easiest——

Q. Make a start, tell us where you are going to begin and end?

A. That would be impossible for me to tell you how I would do
it; that would take some time and energy.

Q. You say about \$100,000 would buy it and you say you haven't
any idea where you can get the ground, from whom you can get it;
why do you venture the statement that you could get it for \$100,000?

A. If you could get it at all, you ought to get it for \$100,000.

Q. Why?

A. That is what I consider it is worth.

Q. Supposing you had property owners that wouldn't sell it
for that?

A. They may over-estimate it.

Q. A man who owns property has to get his price before he sells
it?

A. Yes, sir; he don't have to sell it.

2132 Q. I am putting it to you, Mr. Hauge, whether after all
you would not have to give something more than \$100,000.

A. I think that \$100,000 would buy two blocks in there if there
was two blocks for sale.

Q. That is because that is what you think it is worth?

A. Yes, sir.

Redirect examination by Mr. BRENNAN:

Q. Mr. Hauge, if you were going to plan for a site for a gas
works, you would not be confined to the two blocks now occupied by
the Gas Company, would you?

A. I shouldn't think so; I don't know anything about the gas
business.

Q. I wish you would tell the Master in a general way, without
too much detail, where there are in East Des Moines factory sites
for property which is adaptable for factory purposes.

A. Well, there is large tracts clear to the city limits

Q. Well, tell the Master about where they are located and the size of the tracts.

A. On the Northwestern road there are tracts of land from East Fourteenth Street up to and beyond Hull Avenue a distance of two miles northeast; there is ground up in there that can be bought for \$300 an acre; probably less; I can buy it for \$250 today. The Short Line, the Rock Island, runs through it, and the Northwestern runs through it and the Great Western runs through it.

Q. The Short Line is the Des Moines & St. Paul?

A. Yes, sir.

Q. What is the fact whether or not there are manufacturing establishments already located in that part of the city?

2133 A. There are in that vicinity, not on these tracts.

Q. Tell the Master the character of the factories that are now located in those places?

A. There is a threshing machine factory up in there—

The MASTER: Where are they with reference to the Sixth Avenue bridge?

A. They are east of the Sixth Avenue bridge; they are on the line towards Marshalltown.

Q. It lies north and west of the Fair Ground?

A. Yes, it is west and north of the Fair Ground, on Delaware Avenue, what would be about Twentieth Street.

Q. The Des Moines & St. Paul and the Great Western at that point run almost due north and south?

A. Yes, sir.

Q. And then west of the territory to which you have called attention are there any factory sites, going over towards Highland Park and towards Sixth Avenue bridge?

A. Yes, sir; there are switches that could be run over in there I presume.

Q. Does the Interurban serve that territory now?

A. It serves it across from the east in over west.

Q. Do you know whether or not the Interurban carries on a freight business in connection with its passenger business?

A. I see them carrying freight, yes sir.

Q. Now, going out on East Walnut Street or East Grand Avenue, are there any factories in that vicinity?

A. Yes, sir.

Q. What is the character of the factories in that part of the city?

A. Well, there is a peanut roaster factory and the hosiery mills further out, and I believe the Des Moines Bakery is going to
2134 put up a plant about Twentieth, I have been informed by the owner.

Q. Those properties are all served by railroads, are they not?

A. Yes, sir.

Q. Then going south of Court Avenue where the Agar Packing plant is located, are there some factory sites in that part of the city?

A. Yes, sir; there is trackage along in there, trackage on the Rock Island out towards the Fair Ground.

Q. All the railroads aside from the Northwestern and Milwaukee,

in reaching the city, parallel, do they not, the tracks of each other in entering the city from the east?

A. The Great Western I don't believe goes straight east, it goes on up when it gets to Twentieth Street.

Q. When it reaches the crossing near Twentieth street then it runs parallel to the other railroad tracks?

A. Yes, sir.

Q. And there are the Des Moines & St. Paul, the Great Western, the Rock Island, the Wabash, the Keokuk & Des Moines, and the Burlington?

A. Yes, sir.

Q. And there are factory sites in the vicinity of all these railroads?

A. Yes, sir.

Q. Spurs and switches?

A. Yes, sir.

Q. So that if I understand you, Mr. Hauge, if you were going to locate a gas works in Des Moines, you would not be confined to the particular two blocks to which counsel has called your attention?

A. No, I should not think they would have to be confined to two blocks; if they would go out where we are talking now, 2135 you could buy it for less than \$100,000.

Recross-examination by Mr. READ:

Q. You could still find trackage property if you would go as far out as Borwick or Altoona?

A. I would confine myself to the city of Des Moines.

Q. Within proper limits?

A. Yes.

Q. Assuming there are prackage properties in the outlying districts, nevertheless the fact is there is a demand, to some extent at least, for inside trackage property, isn't there?

A. Well, I don't know that; I have had some——

Q. That answer- the question.

A. I don't know of any particular amount of demand there is for trackage; they are definitely decided whether they want to go one place or another.

Q. There are certain businesses, such as storage that requires to be inside?

A. Yes, sir.

Q. For instance, we have large storage houses in the west Des Moines district?

A. Yes, sir.

Q. I think there is one in the east Des Moines district too?

A. Not a very large one.

Q. For such uses as that it would be impracticable to go out into the outlying districts?

A. For storing city goods it would be impracticable.

Q. Merchandise and such things as that?

A. Yes, sir.

2136 Q. Or if you were manufacturing and your business was such that you wanted to come in contact with the buying public, it would be desirable and a necessity?

A. The closer in the better.

Q. If you were going to locate a gas plant you would think about it a good while if you didn't know anything about it?

A. I don't know anything about gas plants, no.

Q. What you were undertaking to do was to point out grounds that were served by tracks in the outlying remote districts of the city?

A. Yes, sir; about fifteen blocks away from this.

Q. From fifteen to thirty?

A. Yes.

Q. Now you suggest that properties out there are cheaper than the inside?

A. Quite a little.

Q. Nevertheless if a man wants inside property, why of course that is the only kind that he would be satisfied with; he may be mistaken in his judgment as to what he wants, and there have been people located in the inside too?

A. Yes, sir.

Q. And that gives to inside trackage property a certain value?

A. Yes, sir.

Q. Now, I surmise, Mr. Hauge, that you may have been over-conservative in your valuation of the Gas Company property because of some theory in your mind that the existence of this property outside tends to cheapen the inside property?

A. I did not have that in mind at all when I appraised the property on the east side there. I didn't have the other trackage in mind.

Q. What was the basis of your valuation of the gas property?

A. My general knowledge of real estate values in that vicinity and inquiries I made as to sales that had been made in years gone by, and what is on the market now for sale.

Q. What is there on the market for sale; I asked you that?

A. I found one quarter block east of East Third Street that could be bought for about \$7,000; 132 feet on the K. D.

Q. Will you describe that quarter block?

A. It is not on this map.

Q. In what block is it?

A. It is south of the K. D. and east of East Third.

Q. Is it in the corner of the block?

A. It corners on Third.

Q. What other street?

A. And Market.

Q. Is it low or high ground?

A. It is about like all that ground in there, except the Gas Company's ground is a little higher; it has been filled in.

Q. Who owns that property now?

A. I don't know; I talked with the agent who had it for sale.

Q. Who is the agent?

A. Mr. Wilcoxon.

Q. Mr. A. S. Wilcoxon?

A. Yes.

Q. Was he down there inspecting the gas property when you was there?

A. Yes, sir.

Q. He told you he had this quarter block for sale for \$7,000?

A. As I recall it, that is what he could sell it for; he had been trying to sell it for that for a long time and couldn't sell it; 132 feet on the N. D.

Q. And so you concluded that property was as good as the gas property?

A. No.

2138 Q. That at least was the basis of your valuation of the gas property?

A. Not altogether.

Q. What else?

A. My general knowledge as to real estate values in that and other parts of the city.

Q. Such as you have disclosed here in your examination?

A. Yes, sir.

Excused.

B. S. WALKER, being first duly sworn on part of defendants, examined in chief by R. O. Brennan, Esq., testified as follows:

Q. Where do you reside?

A. 1525 Columbus Avenue, Des Moines, Iowa.

Q. How long have you lived in Des Moines?

A. Thirty years.

Q. What is your business?

A. Real estate.

Q. How long have you been engaged in the real estate business in the city of Des Moines?

A. Twenty-eight years.

Q. Practically continuously?

A. Yes, sir.

Q. Were you formerly connected with any real estate firms before engaging in business on your own behalf?

A. Yes, I was with the firm of Percival & Hatton for eleven years.

2139 Q. What was the nature of the business conducted by Percival & Hatton?

A. General real estate business in all lines.

Q. In the city of Des Moines?

A. Yes, in the city of Des Moines.

Q. State whether or not it was one of the leading real estate firms in the city?

A. It was so considered.

Q. How long have you been engaged in the real estate business on your own behalf?

A. Since 1892.

Q. Have you purchased property for yourself and for others during that time?

A. I have.

Q. And sold properties?

A. Yes, sir.

Q. Business properties and residence properties?

A. Yes, sir.

Q. Have you confined your business to any particular part of the city, side of the river?

A. My personal business has been confined largely to the south side. As one of the trustees of the Joseph B. Stewart Estate we have owned property on the east and west side of the river.

Q. By reason of your relation as trustee of that estate were you called upon in the course of your business to purchase or sell real estate?

A. We had to sell it.

Q. You have kept in touch with the market values of real estate in Des Moines?

A. I have endeavored to.

Q. You may state whether or not you are acquainted with
2140 the reasonable market value of real estate in the city of Des Moines?

A. I think I am.

Q. Do you know the property of the Des Moines Gas Company?

A. I do.

Q. You have known that property for a good many years?

A. Yes.

Q. Did you investigate that property some time ago for the purpose of placing a valuation upon the same?

A. I did about a month ago.

Q. I will ask you whether or not you know what a reasonable market value of that property is and was say about January 1st, 1911.

A. I think I do.

Q. And please tell the Master what in your judgment was its reasonable market value?

A. Speaking as a matter of lots or the aggregate?

Q. The aggregate, and then we will take up the lots?

A. I made the aggregate valuation \$97,500.

Q. Now, the map which is before you there Mr. Walker, Exhibit 5, being a blue print showing the location of the Des Moines Gas Company property, within the tracts outlined by the red borders, I will call your attention to Lots 9 and 10 in Block M of Scott & Dean's Addition to the City of Des Moines, and I wish you would tell the Master what in your judgment was the reasonable market value of those lots on or about January 1st, 1911?

A. \$6,000.00.

Q. Now referring to Lots 9 and 10 in Block B——

A. \$8,500.00.

Q. I call your attention to Lots 3, 4, 5, 6, 7 and 8 in Block B and please state what in your judgment was the reasonable market value of those lots about January 1st, 1911.

2141 A. \$20,000.

Q. Referring now to Lots 1, 2, 3, 9 and 10 in Block C,

Scott & Dean's Addition, please tell the Master what the reasonable market value of those lots was on or about January 1st, 1911?

A. \$22,000.00.

Q. Now referring, Mr. Walker, to Lots 4, 5, 6, 7 and 8 in Block C of Scott & Dean's Addition, please tell the Master what in your judgment was the reasonable market value of those lots on or about January 1st, 1911?

A. \$25,000.00.

Q. Now, referring to Lots 3 and 4 in Block K of Scott & Dean's addition, please tell the Master what in your judgment was the reasonable market value of those lots at the time at which your *your* attention was called?

A. \$12,000.00.

Q. Lots 3, 4, 5, 6 and 7 in Block T, Scott & Dean's Addition, what in your judgment was their reasonable market value?

A. \$4,000.00.

Cross-examination by W. L. READ, Esq.:

Q. Your activities in the real estate business for a great many years have been chiefly confined to exploiting some property of your own in South Des Moines?

A. Yes, sir.

Q. Residence property?

A. Yes.

Q. In fact you have not been at all active in the general real estate business during that time?

A. Well, not in the general business; I have sold some of 2142 my own properties during that time in other parts of the city.

Q. Residence properties?

A. No, some business properties.

Q. Where?

A. On Second & Chestnut Street-, southwest corner of Second and Chestnut Streets, I sold a piece of property there five or six years ago.

Q. Have you bought or sold any business property in East Des Moines?

A. We have t-ied very desperately to sell some but were not successful.

Q. Where?

A. On Grand Avenue.

Q. Where on Grand Avenue?

A. The second lot on Front on the north side of the street, 40 feet on Grand Avenue between Sixth and Seventh and property out at First and Des Moines Street-; and then property on Des Moines between Sixth and Seventh; those were Stewart Estate properties.

Q. Have you handled anything on East Locust Street or Walnut Street or Court Avenue or Elm, Vine or Market?

A. No.

Q. East of Sixth street—you say no?

A. No.

Q. Have you known of any property in that district selling in the past five years?

A. Yes.

Q. Where?

A. This property spoken of here, Lots 9 and 10 in Block M; I noticed that sold for \$4500.

Q. How long ago?

A. That is within four or five years, by Mr. George Wright to Mr. Jansen Haines.

2143 Q. You don't know when that sale was made?

A. I don't know at this moment.

Q. Do you know of any other property?

A. Yes, four and five in Block C sold by Rowett to Ben Younker.

Q. How long ago was that?

A. Five years I think; for seven thousand dollars.

Q. Any others?

A. These are all I have looked up.

Q. There has been quite a marked advance in the price of real estate in East Des Moines on Locust Street and Walnut Street in the last two or three years?

A. Well, there has been a theoretical advance on Locust; as to actual sales I have no memory of sales being made at an advance. The raising of the grade on Locust Street has changed the actual value and created a sentimental advance.

Q. That is to say, the holding price has advanced?

A. The holding price has advanced.

Q. When the sales are made they will necessarily be made at an advanced price?

A. Yes.

Q. How much of an advanced price?

A. That is problematical. Of course it was very dead over there. I should think probably an advance of fifty per cent over the prices on Locust Street before the bridge was built and the grade raised. The raising of the grade to my judgment added a greater factor than any other item.

Q. There has been a marked advance in the price of real estate and business property, inside properties in west Des Moines?

A. There has been in West Des Moines, marked.

Q. What is the range of prices on Locust Street do you suppose from Eighth Street east to the river?

2144 A. I presume the choicest properties would sell there for \$3,000 a foot and range down to Front street, I presume about \$500. I put the range between \$500 and \$3,000

Q. Take the corner on Locust Street, the property on which the Equitable building is located, what is that worth per front foot.

A. That property is easily worth \$3,000 a front foot.

Q. What is the range of prices on Walnut Street from Eighth east to the river?

A. Well, you have taken, with the Equitable Building, you have

taken in my judgment the choicest spot on Locust Street and on Walnut there is some property that is worth in the neighborhood of \$3,500.

Q. The Fleming Block corner?

A. Yes, that is \$3,500.

Q. Harris-Emery?

A. That is not quite so good, a little further west. My theory of values is that there is always a north and south axis in every city; Sixth Avenue is the north and south axis.

Q. You know where the Brown-Camp Hardware building is and the Warfield Grocery?

A. Yes.

Q. What are those grounds exclusive of the buildings worth per front foot?

A. Well, I should think those properties, exceptionally fine location, in the neighborhood of \$600 per front foot.

Q. Do you know where the Kraetzer property is?

A. Yes, sir.

Q. What is that?

A. That is a much cheaper property; that is simply a
2145 manufacturing property; the other- have a business element. That would be about \$250 per front foot in my judgment.

Q. The Scheuerman Block, do you know where that is?

A. Yes. It is south of the Rock Island on the east side of Eighth Street.

Q. Do you know the values down in there?

A. There is a peculiar situation there, where the railroads have to help them; some of these days they can be very strenuous in their prices; they have that as a market feature.

Q. The Ellingson property, do you know where that is?

A. Yes, sir.

Q. Do you know what that is worth?

A. It has been sold recently to the Rock Island road. There is 132 feet square, if I recall it. I don't remember the consideration; in my judgment I should say \$300 probably \$45,000 or \$50,000.

Q. That was bought within a year or two for this money?

A. I didn't notice the transfers on that; I noticed the stories on it.

Q. Precisely where is the Ellingson property situated?

A. At the southwest corner of Seventh and Vine Street.

Q. Do you know where the Des Moines Ice Company property is?

A. Fronting over the old artificial ice plant, over on Ninth street.

Q. West Ninth Street?

A. West Ninth Street.

Q. What other street?

A. I don't recall definitely whether that is south in that same block or a block south; my impression is it is in the same block.

Q. Do you know what it is worth?

A. No, I don't remember now just how it is situated as to railroad

access, nor do I know the size of it, but if it were given railroad trackage it would be of the same value as the Ellingson, the
2146 Ellingson property is on Seventh Street. It would be two blocks west, facing west and this Ellingson property faces east.

Q. Inside trackage property in Des Moines has a value hasn't it?

A. Yes, there is the same distinction in my judgment between inside trackage and outside trackage, as there is between inside retail and outside retail.

Q. Aside from the holdings of F. M. Hubbell or the Hubbell Estate, south of Vine street in that district, are there any considerable areas of trackage property unappropriated?

A. No, the fringe is very narrow between what Hubbell owns and the retail business.

Q. In east Des Moines south of Court Avenue, west of Fifth Street and north of Elm Street, what is the extent of unappropriated trackage property?

A. Elm street being the line of the Q. Railroad—well that area is very largely appropriated; the Standard Oil comes in there for a lot of space.

Q. And the Linseed Oil Works?

A. Yes.

Q. And Nicholas Shepherd?

A. Yes, the Gas Company have two and a half blocks in there.

Q. What unappropriated tracts in that district do you know, Mr. Walker?

A. Well, I have not made any personal investigation of the record titles there, but in driving by, there are quite a number of vacant lots.

Q. Single lots?

A. Single lots, yes. I know a number of them belong to the different railroad companies.

Q. There are quite a number of lots that belong to the railroad companies?

2147 A. Yes. While vacant they are still appropriated. That particular tract is not very considerable; I suppose there would be an estimate of seventy-five per cent.

Q. What there is not occupied is held in single lots?

A. I have not investigated the titles; there are contiguous lots. I notice in driving through there two lots without buildings on them; I could not state definitely from this plat without checking it up.

Q. I show you a map, Exhibit 38, and ask you if you recognize and know it—for your own information, I understand it is a photograph of a map not completed to date, but showing the location of the different enterprises within the area shown on the map. Here is the Prouty-Bowler Soap Company; on the corner of Court and First Street is the Des Moines Boiler Works, and further up on Walnut Street the Eagle Iron Works; the Gas Works are shown on First Street between Vine and Market?

A. I recognize this is a map of that section of the city. I am

able to identify some of those buildings; I can not locate all of them.

Q. I want to ask you whether you could identify and point out on the map the different buildings. You may examine the map and note the buildings and then answer whether it is not true that within the district shown upon the plat or map, Exhibit 38, the ground is not practically occupied either by railroads for railway purposes or by various manufacturing and storage enterprises?

A. This map indicates that this territory is largely appropriated by buildings, but as to the extent and also the car lines I am not able to identify all of the buildings; a number of them I am, but others I am not.

2148 Q. Now that district is rather favorably located and situated for inside manufacturing, storage and warehouse property, isn't it?

A. It is.

Q. It is well served by railways?

A. It is.

Q. Is there any district in East Des Moines as close in that affords anything near like the same facilities for such uses?

A. Nothing as close in.

Q. In fact that is about all there is over on the east side of that character?

A. No, that is a different proposition; it is the nearest, but adjoining that and going out it extends—

Q. You will note my question precluded going outside.

A. If you don't go outside of this, that is all there is of it.

Q. Not to go beyond that distance from the post office, if you please.

A. No, you have got to go farther than this. I do not want to appear to state that this is the only property available there.

Q. Of course there is outside property; but there has been a growing demand for inside properties for warehouse, manufacturing and storage purposes for the last few years?

A. There has been for warehouse and storage, unfortunately more than for manufacturing.

Q. But there is a growing demand, isn't there, for such use?

A. Well, we can't notice it grow as fast as we would like to see it.

Q. You belong to the Booster Club?

A. I am simply a private subscriber; I help pay the freight, Mr. Read.

Q. You couldn't find as much as two blocks of contiguous property in that district or in the West Des Moines district, aside from Hubbell's trackage property, that is on the market for sale, 2149 could you?

A. Well, I imagine, Mr. Read, if you were to go south of the Q tracks as this land here is in Block 9 and 10 in M you could buy up all that country through there.

Q. That is below water level though?

A. Well, there is no great different between the elevation of one side of the track or the other.

Q. You will notice the map, Exhibit 5, and see some of the elevations. It goes down to 19 in Block A and south of Block A in Coon point, it is much lower?

A. I don't know what elevation that 19 and 23 is taken of, but the general surface south of the Q track is practically the same.

Q. At any rate, the height given is very much less than it is in Block B or C, isn't it?

A. Yes, this — shown 23 and 71.

Q. Then, Mr. Walker, there are no railway tracks over in that territory either?

A. Well, there is a track there.

Q. The Q is the south track?

A. Yes.

Q. So that is not served with trackage over in that district?

A. My understanding is they have a uniform transfer service and if you are on one road you get the benefit of the local shipment of all of them.

Q. When you go south of the Q, there are no tracks between that and the river?

A. No, the Q is the south track in this portion. When you go further east towards the Packing House then other lines cross it.

Q. What is the range of prices on Court Avenue from First east to Fourth street per front foot?

A. On East Court Avenue?

2150 Q. Yes.

A. I haven't any information of any sales there for a long time.

Q. Do you have to have sales?

A. That is one of the surest ways of determining values, Mr. Read.

Q. Doesn't that depend on whether the sale is a normal one or not?

A. Oh, yes; when a man buys anything for use in the ordinary course of business I would assume that was a fair price.

Q. That is a series of sales?

A. Yes, not a single sale.

Q. One sale wouldn't make a market?

A. No, because there might be many things surrounding that particular sale.

Q. Do you know what the range of prices is on East Walnut Street from the river east to Fourth?

A. Well, I have known a sale there at \$75 a front foot, a purchase made there two or three years ago.

Q. Where was that?

A. A purchase made by J. C. Hume at the southeast corner of Third and Walnut.

Q. What is the holding price now, \$500?

A. I don't know.

Q. I ask you if you know the prices and values on Walnut east from the river to Fourth Street and you have given one sale.

A. I would say \$100 a foot. The Stewart Estate have a frontage of 88 feet and we have figured \$100 as being a fair price.

Q. On Locust?

A. On Walnut Street.

Q. Is that on Walnut Street?

A. Yes, west of the Northwestern station on the north side of the street.

2151 Q. How much frontage is there?

A. 88 feet.

Q. Right joining the track?

A. No, it is retail property. You are asking about Walnut street. It is immediately west of the passenger station on the north side of Walnut and it is retail property.

Q. When you inspected the Gas Company property did anyone go with you?

A. Yes, sir.

Q. Who was it?

A. Mr. Frank Mathis, W. H. Arnold, Mr. A. S. Wilcoxon and I think Mr. Hauge and myself—that makes five.

Q. Did you discuss the matter and arrive at a valuation over there while you were together?

A. We discussed the property, yes, but made no agreement—

Q. There is considerable similarity between your valuations?

A. I said we discussed the property but made no agreement as to valuations.

Q. I didn't ask you that—referring again to that 88 feet of the Stewart Estate on Walnut Street, that is held for how much now?

A. We have held the property at \$100 a foot.

Q. I think I was informed you were holding it at \$10,000? That is a mistake?

A. Why, yes. We haven't offered the property but that is our estimate of its value.

Q. There was some 22 feet of a tract belonging to the Stewart Estate you refer to?

A. No; I spoke of a 30 foot tract on Grand Avenue; and 40 feet on Grand Avenue, in reply to an earlier question; but on Walnut Street the only property the Stewart Estate now holds is 88 feet.

2152 Q. Suppose that you were to receive a commission to buy two blocks of trackage property in West Des Moines east of Twelfth street and south of Mulberry and north of the Hubbell ground, what price do you suppose you would have to pay for it, two blocks contiguous, some place along the Sheuerman property there?

A. That would be a difficult matter. I doubt whether that amount of property could be found that was not owned by the railroad companies.

Q. Well, assuming that it could be outside of the railroad property?

A. Well, I suppose on the basis of sales and values on that west

side property—out to Twelfth—I don't remember the property south there, west of Ninth.

Q. Don't get down into the flood district.

A. You were giving me the property that did not belong to Hubbell. I was selecting the nothwest corner as being the cheapest in price.

Q. You might just as well take in two blocks and a half or two and three quarters?

A. When you go north of Cherry street you have got into property that has value more than simply for factory purposes.

Q. It is inside factory property?

A. Yes.

Q. What would two blocks and a half in there cost today?

A. Oh, I suppose on a basis of, oh probably \$300 to \$350 a front foot.

Q. A block is how many feet square?

A. 264.

Q. Let us get that down to dollars if we can?

A. What is the frontage now?

Q. Two blocks and a half contiguously situated?

A. On a frontage of 660 feet, \$300 a foot would be 2153 \$198,000.

Q. A frontage of 660 feet how much?

A. Would be \$198,000.

Q. Isn't it more than that?

A. Didn't I understand that to be your question?

Q. What would it cost at present values to reduce to one ownership two blocks and a half of the ground in the district referred to, using the Sheuerman property as a nucleus?

Objected to on part of defendants as irrelevant, immaterial and not cross examination, and because it relates to a place remote from the property in question.

Q. You said about three hundred and how much a foot?

A. I said taking such property as the Sheuerman property, in that neighborhood, I said from \$300 to \$350 per front foot.

Q. That is, you mean take it in one block, there would be a frontage on two streets, that is right, isn't it?

A. Yes.

Q. Passing that now, Mr. Walker, the Kraetzer Carriage company property is situated in what block?

A. That is on Front street between Court Avenue and Vine—no between Vine and the street south of Vine; between Vine and Market.

Q. Using the Kraetzer Carriage Company property as a nucleus, what would it cost to get together there under one ownership two blocks and a half, assuming that it is not appropriated to railroad use and that it could be purchased?

A. I think on that basis \$250,000.

Q. How much per front foot do you count on the average?

A. Well that would average probably from \$150 to \$200 per front foot.

Q. Now, Mr. Walker, over on the east side, having in mind the general situation between Court on the north and Market 2154 on the south, and Fifth on the east and the various uses to which the property is devoted, what would it cost now to obtain two blocks and a half trackage property, all served by tracks beginning and using the Des Moines Boiler Works property in Block D as the nucleus?

A. You mean taking and assuming the property was vacant?

Q. Exclusive of the buildings—assume of you please the buildings would have to be paid for in addition to what they are worth and assuming the properties are owned and occupied as they now are?

A. Running from Court Avenue south?

Q. Yes, south, or from Front street east on Court Avenue, beginning with Block D and get two blocks and a half.

A. I should say \$125 a front foot.

Q. Do you call that the value of the property of the Des Moines Boiler Works?

A. Yes, sir.

Q. The Eagle Iron Works, east of that?

A. Yes, when you get back from Court Avenue south I should taper it down.

Q. Why would you do that?

A. Because Court Avenue is a thoroughfare, through street, and adds value to the property by reason of its location and accessibility to outside trade; it is more showy a place in other words.

Q. Toss your eyes on Exhibit 5 and find Block T?

A. Yes.

Q. That is a showy place?

A. Yes, it is showy.

Q. If one had a manufacturing plant on that it would be a good advertiser?

A. It would.

Q. Were there any peculiar circumstances you took into 2155 account in placing the valuation of \$4,000 on that?

A. The fact of the narrow size of it between the street.

Q. Did you allow the old river front problem to enter into that estimate?

A. No, I simply figured on what was there; but I didn't figure on the difficulty of getting a foundation on the outer edge of that cinder pile.

Q. What assumption did you make with reference to the size of the lots?

A. I assumed it to be the size at the top of the bank as now graded.

Q. What is that?

A. My impression is it was about fifty feet; it was a month ago I made the examination.

Q. Mr. Walker, the map by scaling it shows the depth of the lot to be 84 feet; you didn't take that depth?

A. I stepped the distance across there and my impression was it was not as much as 84 feet.

Q. Your impression is it was about 50?

A. About 60 feet.

Q. So you assumed a narrow lot?

A. Yes.

Q. Did you consider them dissassociated from other property of the Gas Company, as separate property?

A. As separate property.

Q. Of course, they would have an added value, wouldn't they, if they were owned by the same parties that own Block B and associated with that property?

A. Well, if the street divides them, I don't see how that adds, that particular tract, especially, I could see no occupancy, save where their pumps were to clean out the pipes.

Q. That is to say, you attribute no utility to Block T by reason of its use in connection with the other property of the Gas Company, or by reason of its use in the gas business?

A. No, I did not. I simply took that as a piece of ground by itself.

Q. You asked yourself what somebody would pay for it?

A. Yes, what would this be worth to use as a manufacturing proposition.

Q. Disassociated from other property, as a separate piece of property?

A. Yes, a separate piece of property.

Q. Now, Mr. Walker the use for which a property is or may be available is a factor making for value, isn't it?

A. It is.

Q. So far as you know Block T may have a use in connection with the other property of the Gas Company in the operation of a gas plant, that is true, isn't it?

A. It might, yes.

Q. You gave no consideration whatever to that aspect of the question I mean its possible uses in connection with the gas business?

A. No, in placing my value on Block T I did not consider it an integral part in the operation of the gas plant; I could see the pumps were there.

Q. Well, now, Mr. Walker, assuming, if you please, that the two blocks, or assuming rather that the quantity of ground the Gas Company has is reasonably and fairly required in the conduct of the gas business, and assuming no less, substantially than the Company now owns would be sufficient, and assuming that the property is in its characteristics, so far as soil is concerned, adapted for that business, and assuming that there is a demand for the location for the site for a gas manufacturing and distributing plant, wouldn't that tract of land located as it is centrally, accessible as it is, 2157 in your judgment command a much greater price than the valuation you have placed upon it for such a use?

A. Well, not being a gas expert, I cannot answer that, save in this way, if a concern needed more ground—

Q. You don't need to be a gas expert, you only need to be a real

estate expert. I require by the question you to assume the adaptability of the ground for use for that purpose, then I ask you whether the tract of ground of two and three-fourth- blocks substantially would not command a much greater price than the valuation you placed upon it for such a use?

A. Well, it would command a greater, but how much greater I am not able to say.

Q. Wouldn't it command substantially as much as the ground, and equal quantity of ground, just north and in block D and in Block I?

A. Well, if one piece of ground would be as valuable to them as the other, both serving the same purpose, the values would be the same.

Q. The other two blocks you had about \$225,000 or \$250,000?

A. No. That was on the west side of the river. What I endeavored to state the valuation on Court Avenue I put at \$125 a front foot and then tapering down south on Court Avenue.

Q. On the frontage on Vine you would put it what?

A. Block D, as I did here, substantially \$100 a foot. The only answer I could make to that question was requiring all of that ground for one purpose, would add to its value; to what extent, I wouldn't state.

Q. How much you wouldn't want to say?

A. How much I wouldn't want to say.

Q. What I am trying to get before your mind, Mr. Walker, is the question of the value of this property of the Des Moines Gas Company for the uses to which it is devoted, or to a similar use requiring so much ground as that similarly located?

A. Well, it would only—all I could do, Mr. Read, would be in my judgment make an estimate; in other words, on the theory I was going to buy the ground I would have to pay extra prices for some — it there; some men would hold one up; on that basis on that sort of a basis I should say an increase of ten or fifteen per cent would cover the fair going prices on the whole tract.

Q. Just precisely what do you mean when you say that in your opinion the gas property is worth \$97,500?

A. I mean, taking these special and separate descriptions as I testified to their value and selling them for factory or warehouses or similar plants, that would want 132 feet frontage, taking 132 feet as the unit.

Q. Suppose you take the property or you have a customer who wants all that ground, two blocks and three quarters substantially, that would command a greater price than if you were dealing in smaller units, single lots or two lots?

A. It would if you know a man had to have that amount of ground.

Q. Suppose there was a customer in the market for that much ground in that locality?

A. Of course, if the owners of the lots in that locality knew that fact it would appreciate it.

Q. Suppose you owned that ground and the Gas Company would come to you to buy it for the purpose of devoting it to the business it is now devoted to, your estimation of the value of the property would be greatly in excess of what you made it now?

A. I suppose I am human, along with the rest of you. That undeveloped ground if a man wanted to buy a tract of it. I 2159 would sell it for less money than I would peddle it out lot by lot; on the other hand if the land belonged to a number of owners, a tract of that size, you would have to pay a little more than lot prices in some cases. Answering your question to the best of my ability all I could do would be to make the estimate of an increase I should say ten or fifteen per cent.

Mr. BRENNAN: That is to take care of this element of human nature?

A. Yes.

Q. To reproduce this property, that is to say, obtain a tract of equal size in the manufacturing district on the west side of the river, according to your figures, would cost something like \$500,000 or \$600,000 of the Sheuerman corner?

A. No.

Q. \$425,000 to \$600,000?

A. I think I said from \$300 to \$350 a front foot for the highest.

Q. To reproduce it in the neighborhood of the Kraetzer Carriage Company property would cost \$250,000?

A. Yes.

Q. To go just across the river and reproduce it there you have given the figure of \$97,500?

A. Yes, but when you cross the river you cross the dead line of real estate values.

Q. That has been more so in the past than it is just now?

A. I have not seen the advance on the east side property. We have been in the market as sellers of east side property.

Q. Not such property as that?

A. Generally the advance has been with the west side property, on all the properties, it has been on the fringe to the west.

Q. Precisely what is the basis of your valuation of the Gas 2160 property; on what do you base it, speaking accurately now and precisely?

A. Well, I base it, having the two items as one of the things; I form my basis on two sales, the sale of Joun Rowett to Ben Younker and the sale of George Wright to Mr. Haines; and the general familiarity with property off to the east and south on the river there, and the general value of real estate on the east side, value on the business streets.

Q. What assumptions have you made now with respect to the general values of real estate?

A. I don't quite understand that.

Q. You say you base your judgment upon two sales, the Rowett sale and the George Wright sale, and upon your general knowledge of east side values?

A. For instance, Walnut street property is selling at \$75; and

Grand Avenue property not being able to sell at \$100 and the fact that there has not been the growth of population in the town that we anticipated and hoped for.

Q. Why do you recur to the Walnut street sale of \$75; that is not the asking price now by any means?

A. No; Hume has built a building on there; that property was for sale a long time before it went for \$75.

Q. Don't you know properties that sold on Walnut Street for as high as \$300 since?

A. I don't know of those sales; but what are the improvements?

Q. Without improvements?

A. A specific sale of \$300 a front foot, I don't know of such.

Q. Do you refer to the sale of \$75 a foot some years ago?

A. Yes.

Q. During the panic?

A. No, it wasn't in the panic.

2161 Q. It was an exceptional sale, wasn't it?

A. It was not so considered; I was trying to sell him some property at \$100 and he took this at \$75.

Q. You was trying to sell on Grand Avenue at \$100?

A. Yes, sir.

Q. What is the asking price now?

A. I don't know.

Q. Mr. Hume bought it for speculation?

A. Or investment, whatever you may term it. He has since built a building on it.

Q. Do you know just when that sale was made?

A. I don't recall now, but I should say within about three years. I could look up the record and determine it.

Q. Who was the seller?

A. I don't remember.

Q. A resident or a non-resident?

A. I don't know as to that; I simply know Hume bought a piece of property on Walnut Street.

Q. That is the only sale you have in memory and that is the one you used as a factor in making up your mind as to the value of the gas property?

A. One of the factors.

Q. You spoke about the Rowett sale?

A. Yes.

Q. What property was that?

A. Lots 3 and 4 in Block K.

Q. When was that sold?

A. I don't recall that date; I should say within five years.

Q. Nearly five years ago?

A. I should think so.

2162 Q. And the price of that?

A. \$7,000.

Q. For the two lots?

A. Two lots 132 feet square.

Q. The other sale was the George Wright sale; what was that?

A. That was lots 9 and 10 in Block M.

Q. Now, Mr. Wilcoxon was present when you were inspecting the property.

A. Yes, sir.

Q. Did he give you the same figure he gave to Mr. Hauge with reference to the lot over here on the market?

A. We drove over in a machine and he pointed out some ground and said the man asks \$7,000 for it. I didn't question him about it; we had fixed—we started over that way.

Q. Did he give you the figures of the Rowett sale?

A. No, I found that from the record. Mr. Wilcoxon spoke of some piece of property that he had for sale for \$7,000.

Q. Then upon that assumption east Des Moines property was the dregs of Des Moines?

A. I didn't make it as strong as that.

Q. It was the yellow god anyhow?

A. You can define it.

Q. You put that valuation on it that you wished?

A. No, as I stated, Mr. Read, that the purchase of this Rowett property was \$7,000.

Q. Five years ago?

A. Now, since that question is brought up, I would like the privilege of referring to the record and give the dates, of this Lot 9 and 10 in M being sold at \$4,500.

Mr. READ: You may do so.

At this time an adjournment was taken until 1:30 P. M.

2163

1:30 P. M., MONDAY, August 14, 1911.

B. S. WALKER being continued on cross examination by W. L. Read, Esq., testified as follows:

Q. You have got the dates of those two sales you referred to?

A. I have, yes.

Q. You may give them?

A. The sale of lots 9 and 10, Block M by George G. Wright to Jansen Haines was on October 16, 1905 and the sale of Lots 3 and 4, in Block K was by John Rowat to B. A. Younker on April 18, 1905.

Q. What is your present appraisalment of these lots in Block K?

A. In Block K my valuation is \$12,000.

Q. The Younker sale was how much?

A. Was \$7,000. And the Wright sale my valuation was \$6,000 and the sale was \$4,500.

Q. Were there any unusual circumstances connected with either of these sales that you know of?

A. Not that I know of, no sir.

Q. Did you have any personal knowledge about them?

A. No information.

Q. Somebody told, you of them?

A. I looked them up on the record.

Q. Somebody in the first instance told you of these two sales?

A. No, after I looked this property over and before I came to a determination as to its value I looked up the record for sales in that immediate vicinity and found those two sales.

Q. I wish you would turn your attention to Exhibit 5 and along on the north side of Court Avenue just north from the Des Moines Manufacturing and Supply Co., you observe it do you?

A. On the north side of Court Avenue.

Q. On the corner.

A. Yes, sir.

Q. There is 132 feet frontage on Court Avenue that was sold to or bought for the Bentley & Olmsted Manufacturing Co., a boot and shoe concern?

A. I saw a statement in the paper.

Q. Do you know at what price?

A. I do not.

Q. Did you take any pains or make any effort to find out?

A. No, I did not.

Q. For your information I will state, and you may accept it as a authoritative that that property was sold and purchased recently for \$22,000. That is to say about \$222 per front foot. Does that seem to you to be too much?

A. That would seem to me to be a very liberal price.

Q. Too much for your conservative estimate?

A. It might be.

Q. If that sale were made that would have something to do in modifying or changing your judgment wouldn't it as to the Des Moines Manufacturing & Supply Co. property?

A. Well I would consider the—of course the use for which it was bought, there is a manufacturing plant that wanted a central location.

Q. By the bye, that property on the north side of Court Avenue is not a trackage proposition there is it?

A. No, not trackage property.

Q. Could be worth less than property to the south, south of the street?

2165 A. It would for the ordinary manufacturing purpose only

I was told by Mr. Olmsted that they didn't need trackage because they didn't have shipments in car lots. The ordinary factory that gets in material in great quantities of course must have trackage or a great deal of cartage.

Q. That may be a particular circumstance as far as that property was concerned, but generally speaking trackage property in that district would be worth more than non-trackage property.

A. It would for the ordinary manufacturing purpose.

Q. To what extent of course would depend on the demand for it for that purpose?

A. Yes, sir.

Q. The Des Moines Manufacturing & Supply Company just across the street is trackage property?

A. It is.

Q. So is the gas company trackage property.

A. It is.

Q. The gas company property is only one block away?

A. Yes, one block. It is a long block or ordinary block and a half; it is only the distance between two streets.

Q. The south end of the Des Moines Gas Company's property is more than one block from the Des Moines Manufacturing & Supply Co.'s property?

A. Yes, the block between Court Avenue and Vine street is a half — wider than ordinary blocks.

Q. Do you care to modify your judgment as to the value of the Des Moines Manufacturing & Supply Co.'s ground, you placed it this forenoon as I recollect at \$125 a front foot on Court avenue?

A. Yes, sir.

Q. Don't you think that is too low?

2166 A. I do not sir. It strikes me that was an exceptionally high sale, this other property strikes me as an exceptionally high price and I would not believe that other property would see for any such figure.

Q. Do you know what the holding prices of property on Court Avenue east of this property I have called attention to is?

A. I do not. I had a general talk with Mr. Patrick who *owns* the Dempster Manufacturing ground some time ago, but he is the only person I talked with.

Q. How long ago was that?

A. That was a year or two ago. I don't recollect the price he made, he said he was anxious to sell.

Q. You don't know the present holding prices of properties on east Walnut street do you from First to Fourth?

A. Well we have a piece of property that we would be glad to sell for \$100 or \$125 a foot. Aside from that I don't know.

Q. Aside from that you have no information?

A. No.

Q. Do you recall what is was the city paid for the new city hall site at the corner of First and Locust street?

A. My impression, I don't know, but my impression is about \$70,000.

Q. \$78,000, wasn't it?

A. I don't remember definitely.

Q. And that was ab-ut 100 feet frontage on Locust street and the same on Grand?

A. It is probably something not far from that, but I would rather figure that the other way, Second street frontage.

Q. About \$390 a front foot wouldn't it be?

A. If it was a hundred each way it would be 200 feet and
2167 that would figure \$390 for \$78,000.

Q. That would be \$390 per front foot for the frontage on Grand Avenue?

A. Yes, sir.

Q. The same for the frontage on Locust street?

A. Yes, sir, but if I may be permitted to say that property was especially valuable for that specific purpose.

Q. So the gas company property is for that specific purpose isn't it?

A. Well I don't know whether some other location might not be just as good for the gas company as the present one, it is a convenient location.

Q. Assume it would not be.

A. If that is the only place they could make gas of course it would be especially desirable one.

Q. Assuming it to be well adapted for the business, it is centrally located?

A. Yes, sir.

Q. Accessible from all points?

A. Yes, sir.

Q. Served by trackage well by more than one railroad. That would be worth more for that specific purpose just the same as the city hall lot would be for the city hall site?

A. Yes, if necessary for them to have a location well served by trackage, as to the advantage of that identical spot for a gas plant I am not prepared to say that it would have great advantages over any other one where it has the same amount of ground and trackage.

Q. In fact it is then worth more money than you have given in the start is it?

A. I gave my best judgment on its value for that purpose.

2168 Q. Yes, from your point of view. You say the city hall site was exceptionally valuable for that purpose?

A. Yes, I do.

Q. And you testify then the value of \$390 a front foot, that was the Grand Avenue frontage and Locust?

A. Well I was not buying that property, they bought it and I assume the best price they could get.

Q. You think that was too high?

A. Frankly I do yes.

Q. How much too high do you think it was?

A. I would think \$50,000 would have been a very good round price for that property, but I was not consulted when it was bought.

Q. I am just inquiring because I imagined you being conservative thought that possibly too high?

A. Yes, I do.

Q. On west Locust street you said property graded down to about \$400 a front foot next to the river is that right?

A. I was under the impression I said five. Call it five.

Q. Go across the river what is it worth immediately on the other side of the river?

A. On the east side?

Q. Yes.

A. Oh I would place the highest value on vacant property there at \$150 on Locust street.

Q. Where do you find that property.

A. Well I should find it any place between the river and 4th street.

Q. What would be the highest, you said vacant property?

A. I would consider the most valuable property that on the river front which would be across from the city hall what would be the northeast corner of Locust and Front.

2169 Q. What would you call that worth?

A. Well the 132 feet square, I should think \$250 possibly a front foot would be a very high price for that would be top price for that 132 feet front on the river and on Front street and Locust street.

Q. Were you on the condemnation board that appraised that?

A. I was not.

Q. Were you a witness in court?

A. I was not. I was not aware there had been condemnation on that 132 feet.

Q. You are speaking of the property known as the Snook property?

A. It belongs to Hubbell. I was endeavoring to testify about the property across on the east side of Front street and the south side of Locust, the east side of Front.

Q. The old Bottling works?

A. No, the bottling works was on the west side of Front street; ran down to the river.

Q. I am talking about property on the west side of First Street that was condemned and is now part of the parkage over there. What would you call that worth. There on Locust street?

A. Well I should think \$250 a foot was a good price for it.

Q. Do you know where the Shaver Carriage Co. property is, the corner of Third and Locust?

A. Yes, sir.

Q. What is that worth on frontage?

A. I would say \$150 a front foot.

Q. Do you know what the holding price of properties along there is?

A. I do not.

Q. What do you gauge prices by?

2170 A. Well on the rental that you derive, and on the property of the Stewart estate as on Walnut and Grand Avenue.

Q. You are capitalizing the income, are you?

A. Yes, that is about it.

Q. And that without regard to the holding or asking price?

A. Yes, sir.

Q. And without regard to the price you could buy such properties for?

A. Well properties in there have been—I have heard statements that property was sold there for \$200.

Q. You thought it was too high didn't you?

A. I thought that was a good fair price for it.

Q. Butler property about \$150 a front foot?

A. Yes, sir.

Q. Frontage on Locust street?

A. Yes, sir.

Q. Do you know where the Bolton property is?

A. Across the street some place.

Q. Do you know what the asking price of that is?

A. No.

Q. Don't know the holding prices of any properties along there?

A. I do not.

Q. All you do know is the Stewart estate has got some over on Grand north of that you would be glad to sell for so much?

A. Yes, a hundred dollars a foot.

Q. But you don't know the holding price of property on Locust street?

A. No, sir. I have seen that property on Locust street and Grand Avenue go down 50 per cent on the asking prices.

Q. And you have seen them a good deal cheaper than they 2171 are now too haven't you?

A. Of course these people—there have been a number of sales on Grand Avenue I have not investigated.

Q. The truth of the matter is, you don't regard east side property, Locust, Walnut, Court Avenue or Vine street down there of much value relatively?

A. Relatively I do not, no sir.

Q. You regard it as cheap stuff?

A. I do as compared to west side property.

Q. Do you know a tract of thirty three feet on the northeast corner of east First and Locust streets, of about 132 feet deep?

A. I know that location, yes, sir.

Q. Do you know what that is held at?

A. I do not.

Q. Did you inquire?

A. I did not, no.

Q. Do you know who owns it?

A. I do not.

Q. Did you ever hear it was held at \$15,000 or practically \$500 a front foot?

A. I never heard that, no sir.

Q. Of course you would think that too high too?

A. I would think that too high.

Q. There is 22 feet on Locust street just west of the Northwestern track owned by J. H. Phillips, Harry Phillips, do you know what that is held at?

A. I do not.

Q. Do you know whether it is held at \$8,000 or not?

A. I do not. Harry is amply able to hold it at most any price.

I base my valuation on what property would produce with a 2172 reasonable anticipation of increase.

Q. You take the income that can be produced from the property and after paying taxes and expense of keeping you capitalize the income?

A. Yes, and if it is situated where the growth of the city is toward it I would add something in anticipation, speculation.

Q. Capitalize at 5 per cent or six per cent?

A. I would capitalize it on six per cent.

Q. So in figuring the Des Moines Gas Company property you necessarily assume some income that could be produced from that?

A. Oh surely.

Q. What did you assume, what income?

A. Well I hardly—well I figured that—I probably a little anticipated myself. Speaking of the gas company and considering their use of it in the gas company's use of it, I did not figure a specific rate of interest or income that they would get on that property. I simply figured the value of that property as any person would buy it to use for an ordinary commercial use.

Q. You have given us aggregate values on the company's property of \$97,500?

A. Yes, sir.

Q. What rental do you figure would be produced from that as a basis for your valuation?

A. I did not make any single estimate of that particular property. But I was trying to state in figuring the question of value *on* I would figure a specific piece of property as to what it was worth as to the rent that might be obtained from it, that would be my basis of value.

Q. Take lots 9 and 10 in Block M, you have given us a valuation of \$6,000?

2173 A. Yes, sir.

Q. Now what income did you figure that that property would produce?

A. It would be very hard to figure any income from that property.

Q. Did you figure any income from that?

A. I figured no income from that. That property along there I would figure would simply be held—that its value would be anticipatory, if a factory came along and wanted a piece of ground they could pay that amount of money for it, you would have to get an income in the increased price above what you bought it at.

Q. You figured no income then for lots 9 and 10?

A. No.

Q. It is in use now?

A. Yes, sir.

Q. You allowed nothing for that use?

A. I figured it was in use, both used as part of the plant and adjoining ground lying along side of it, in other words take that piece of ground and detach that building and there would be no important income. I assumed no income from it putting that value of \$6000 on it.

Q. Lots 9 and 10, Block B did you assume any income there?

A. No more than the general use of the property by the gas company.

Q. What did you assume the general use was worth by the gas company?

A. Well about the only way to answer that would be to say the interest on the valuation that I placed on it.

Q. That is going around in a circle, that don't get any place.

A. In none of that property, none of these values did I figure this company gets a certain per cent from this property.

Q. Did you assume this on the income that could be
2174 obtained from that property by the owner. Did you do that?

A. Simply in this way. In figuring these values I figured if there was a use for it for actual manufacturing purposes or for actual occupancy that use would be worth a given rate of interest at six per cent on the valuations I made. In other words *in other words* there was a valuation of \$6000 I would figure worth \$480 use to the plant.

Q. I understood you, you capitalized the income to obtain value.

A. As the general valuation to determine the values.

Q. You don't get any place assuming a valuation and then saying the rent is worth the interest on that much capitalization do you?

A. Well I figure a value that when the property is used when there is somebody to use it and they put it into use that it must pay an income on what the property is worth.

Q. How do you fix values then by that?

A. Well I would figure a manufacturing plant could afford to pay so much for its ground based on general sales in that neighborhood if the price was too high for them they would have to go to some cheaper neighborhood. Where a piece of ground is vacant like this stuff along the track, a man who buys that for speculative purposes expecting to hold it until somebody comes along he can't use it, in other words he must get unearned increment as his profit.

Q. Here is the gas company the property all in use. What is the value of the use?

Objected to as not proper cross-examination and incompetent.

Q. In that same connection how much rental would a person have to pay to obtain the use of all of that ground?

Objected to for the further reason that the witness has already explained three different times the manner in which he
2175 arrived at his valuation in real estate.

A. In determining my values I figured that the use of the gas company would be the same as the use of any other occupant of these lots, I did not figure there was a specific value in their use by the gas company about other use by a factory or warehouse or any other manufacturing purpose.

Q. What would be the rental value then for any purpose, any use to which the property is adapted?

Same objection.

A. Well six per cent of the real estate values would be a fair rental in my mind.

Q. Now then what are the real estate values?

A. Well \$97,500 in my judgment on this property.

Q. A moment ago I started out by asking you a question and you said you determined values by capitalizing the income or rental.

A. Yes, sir.

Q. Now I find that you assume a value first and then figure the income from that, am I right about that?

A. Well hardly. It is probably like little Lord Fauntleroy in Mrs.

Hodgson's book he said he was a very poor "splainer" and that may be my difficulty Mr. Read. I have tried to state this, if you will permit me that the question of the value of a piece of property, the thing that would occur to me would be what can that be used for and what price can be paid for its use and if it is property for which there is immediate demand it is comparatively an easy thing to determine that value. If it is outlying property that the demand is uncertain, that there is no ready market for it, has to lay there until some concern comes along and wants it the man who buys that property must pay the anticipatory value on it, the speculative value covering the period held while not productive.

Q. You had the problem presented to you of placing a value on the gas company property?

A. I did.

Q. Precisely how did you do it?

A. I looked the property over and I looked up sales of these particular pieces, I knew of the sales of the property on Walnut street and Locust and the prices we were asking for our property and on that basis I came to this conclusion.

Q. Isn't it a fact Mr. Walker that properties, quarter blocks on Mulberry street at 10th and Mulberry along through there and this side of there five years ago would not and did not sell for more than \$10,000 a quarter block?

A. Yes, that is true.

Q. It is true now is it not they are selling for as high as \$20,000 a quarter block, held for that?

A. I know they are held at very high prices, I know a friend of mine who has bought one said he would like to know what to do with it.

Q. Well he better sell it again at advanced prices.

A. He is the fellow that paid the advanced price.

Q. Do you know a property on the corner of east First and Walnut street that was condemned about a year ago by the city for park purposes belonging to Dr. Patterson?

A. Yes, sir.

Q. Do you know the price?

A. I don't remember the price. I saw the condemnation and looked it over.

Q. Let's see if I can't refresh your recollection. That was forty feet frontage on First street and 47 on Walnut, do you recollect the price?

A. I do not. There was a bunch of those, I read it over at the time and paid no special attention afterwards.

Q. Don't you recollect the price of the Patterson property was \$8500 or \$8,250?

A. I don't recollect these different prices, there was quite a number of condemnations in there and I don't recollect the items of each condemnation.

Redirect examination by R. O. BRENNAN, Esq.

Q. You have been identified with some of the institutions here in the city, that is Commercial Exchange?

A. Yes, sir.

Q. You were formerly president of that organization?

A. President of the Commercial Club, yes.

Q. You are also a member of the Greater Des Moines Committee?

A. No, I am not. As I said I simply helped pay the freight.

Q. Have you laid out additions to the city of Des Moines?

A. I have, yes.

Q. How extensively have you been engaged in the real estate business in that connection?

A. With the Vermont Syndicate that laid out Kingman Place a matter of twenty five years ago I was one of the incorporators and the first secretary of that. That is the country that is bounded by 28th and 30th and Kingman Boulevard and old North street, now University Avenue. Then I have been identified with Clifton Heigh- company for 20 years past.

Q. So you have been actively engaged in the real estate business in the city practically all of your residence in the city?

2178 A. Yes, sir. Then as I stated I was one of the trustees of the Joseph B. Stewart estate.

Q. How extensive were the holdings of the Joseph B. Stewart estate?

A. They had probably \$250,000 worth of real estate.

Q. Some of it down town property.

A. Yes, some of it.

Q. Now Mr. Read persisted in saying that this property that you refer to on east Walnut street was up against the railroad. I don't know whether that detracted from its value or not, and I would like to have you tell the master just where the property is located?

A. It lies west of the alley that is west of the Northwestern Station on Fourth and Walnut.

Q. Now another thing, Counsel asked you about the value of the use of this property to the Des Moines Gas Company and of course you keep in mind that in connection with the use is the use of all the streets and highways which they use for their distribution system do you not?

A. That would count, yes.

Q. So that it would be as you say hard for the purpose of determining just what rate of return was accrued from the real estate itself.

A. I don't want to be understood to testify as to what rate should be paid on the company's investment. My statement of percentage was intended as indicating a general factor to determine values of real estate.

Q. You were also placed in a position by counsel in that you were required to assume that in case parties were organizing a gas company that there was no other site in the city which they could pur-

chase. Now I would like to have you tell the Master in a
2179 general way just what factory sites are available contiguous to
railroads either in South Des Moines, East Des Moines, West
Des Moines or North Des Moines?

A. Well it is practically without limit taking railroads with the
cross roads and the outside territory after you get out a mile and a
half or two miles all that northeast country that Mr. Hauge
testified about, then the Highland Park country crossing over the
Belt Line and all of the southeast bottom and all of the south side,
there is hardly any limit. We have 54 square miles in the city and
I suppose there is occupied possibly fifteen square miles and the
rest of that is available for factory sites and the tracks, it is possible
to run spurs from the tracks and cover the outlying country im-
mediately contiguous to the close settlements.

Q. The Rock Island, the Keokuk division, the Wabash, Burling-
ton, Des Moines and St. Paul all enter the city from the east.

A. Yes, sir.

Q. And their tracks parallel each other?

A. As they enter, yes.

Q. The Northwestern Railroad runs in a northeasterly direction
from its station?

A. It does, yes.

Q. Then after it gets east to 14th street it runs——

A. Practically north.

Q. And the Chicago Western after it leaves east 20th street in
what direction does it run?

A. That runs practically north parallel to this so called short
line.

Q. And the so-called short line is the Des Moines & St. Paul.

A. Yes, sir.

Q. Now controlled by the Rock Island?

2180 A. Yes, sir.

Q. So that all the railroads that reach West Des Moines
come by way of the east side of the river except the Milwaukee road?

A. Except the Milwaukee road, yes.

Q. The Northwestern does not enter the Union station or any
other station in west Des Moines?

A. No.

Q. Now it is a fact is it not Mr. Walker in the city of Des
Moines that for instance you may find at Sixth and Walnut streets
property that is worth from \$2,000 to \$3,000 a front foot yet you
may go two blocks from that particular point and find property way
below that?

A. That is true.

Mr. READ: I suggest that — easily open to the objection leading
and suggestive.

Q. The retail section of the city of Des Moines, the principal
retail section in West Des Moines is bounded by what streets?

A. It is bounded on the south by Walnut, the southside of Walnut
on the north side by Locust and on the east by Fourth and on the
west by Ninth. That covers the heart of it.

Q. The heart of the retail section of the city of Des Moines?

A. Yes, sir.

Q. Now as you radiate from that center in any direction what is the fact as to the general range of prices?

A. The prices are very much less and especially as you go to the east or to the south of it. As you go north the growth of the city being north and west the values have increased in these directions more than elsewhere, that is asking prices have.

Q. Counsel tried to have you say in east Des Moines, 2181 that is you sort of threw cold water on east Des Moines. You don't mean you have any particular aversion to east Des Moines or anything of that sort?

A. Not at all sir. I was trying to state what my experience had been, the difference between east and west Des Moines real estate. I was trying to state facts as I saw them without any malice towards east Des Moines.

Q. Simply looking at conditions as they appear with regard to real estate?

A. Yes, sir.

Q. You were asked about property along Front street in East Des Moines. You were asked about the old Butler property which is now under investigation in district court under condemnation proceedings. Do you know the property immediately south of that where Mr. McGrew used to live between those two blocks?

A. I knew McGrew had a piece of property there.

Q. Do you know at what price it was sold to the city?

A. I don't know. I know that the city bought one or two pieces in in and condemned the others, I saw the result of the condemnation or award but didn't follow it up, I read it as published in the papers.

Q. Your attention was called to that by reason of property at 1st and Walnut street, I believe some reference was made to the Pater-son property and the price \$8,250. Do you know just what claim was made when the matter was under investigation in the district court on an appeal from the sheriff's jury?

A. All that I saw the newspaper statements that he claimed to the river line, that he was claiming greater depth than the city conceded.

Q. You don't know whether he got that or not?

2182 A. I don't know sir.

Q. He was claiming some \$15,000 or \$20,000 did you know that?

— I didn't know that. I remember the Taylor case, I paid more attention to that than the condemnation. The Taylor case decided the river line did not include artificial filling and my understanding was that Patterson claimed to the river line not including part of this that was platted.

Q. His claim in that case was based upon the Walnut street frontage?

A. I would naturally suppose so.

Q. Rather than the Front street?

A. Yes, sir.

Q. Now the city hall site, he asked you about that?

A. Yes, sir.

Q. And your remembrance is that they paid \$87,000?

A. \$70,000 was my impression, Mr. Read stated \$78,000. No doubt he is right?

Q. That is some distance from the gas works is it not?

A. Yes, four or five blocks I would say. It is between the third and fourth block.

Q. Well the gas works is south of the Rock Island railroad?

A. Yes, sir. Would be a block and a half as we figure blocks, it is a long block to Court and Walnut would be two and Locust would be three. It would be three and a half blocks as we measure blocks and the width of the street, that is from the south side of the Walnut track would be three and a half blocks and the width of the street to the south line of the city tract.

Q. Suppose you start the west side of the river at say Sixth and Locust and proceed three blocks south and is there any difference in the value of real property?

A. A vast difference.

2183 Q. About what percentage of difference?

A. Well that would take you there to south of Vine street on Sixth, of course there you get into some valuable trackage, but there is a difference there, the Sixth and Locust frontage would be worth six times, easily six times in my judgment as Sixth and Vine frontage on west Sixth.

Q. Now as you proceed south from east First and Locust street is the range of prices higher or lower?

A. It is lower.

Q. I believe you have said there are tracts of ground in south Des Moines which are available for manufacturing institutions.

A. There are.

Q. Any railroads in south Des Moines?

A. Yes, the Great Western is there.

Q. What advantages come to a manufacturer by reason of the Des Moines Union, the transfer privileges that obtain in Des Moines?

A. To answer personally I had or did have a lumber yard on the south side and it was convenient to have my cars of lumber set on the buggy works switch, as it was called, and the transfer charges were absorbed by the shipping road was my understanding so my understanding is the shipper on any of these lines get cars set to his track or his switch without any specific payment for it.

Q. I presume there are certain lines of business where it would be a great advantage to be close in and be near the business center.

A. Yes, there are.

Q. But where you are manufacturing a product which is delivered to under conduits, mains or pipes, all over the city there would not be that same necessity as where you had a business which requires it to be close in or in the business center.

2184 Mr. READ: I don't believe Mr. Walker is qualified to give an expert opinion on the gas business.

A. Storage houses would have to be close in but a concern that

people did not have to go to the plant could be farther away in my judgment.

Q. Without suffering any inconvenience?

A. Yes, sir.

Recross-examination by W. L. READ, Esq.:

Q. You of course don't know anything about what the cost of constructing underground pipe means?

A. Only laying water pipe, Mr. Read up to Clifton Heights where I could not get the water company to do it.

Q. That is just one pipe.

A. Well it has been several pipes, several times.

Q. You this forenoon said you made some distinction between outside and inside business property?

A. Yes, I did.

Q. You mean in each instance inside property is worth more money.

A. Yes, far more.

Q. Very great deal more?

A. Very great deal more.

Q. Your south side Clifton Land Company property is residences is it not?

A. Well largely, we have land adapted to factory purposes but of course it is chiefly residences.

Q. It is not a factory district to any considerable extent?

A. Not any considerable extent although we have factories over there.

2185 Q. This Stewart estate is on the east side is it?

A. The great bulk of it, but there are scattered properties.

Q. You since you have been engaged in the Clifton Heights land deal have not made any deals in other east Des Moines or west Des Moines business property or manufacturing properties have you?

A. Yes, I have sold on my own account property on——

Q. On the south side?

A. No, I am speaking of this at Second and Chestnut Street property I have been instrumental in disposing of *that* the last few years.

Q. But you have not been active in the general real estate business?

A. No.

Redirect examination by R. O. BRENNAN, Esq.:

Q. In your valuation of the real property of the Des Moines Gas Co., does the amount which you have stated \$97,500 represent your independent judgment as to its valuation uninfluenced by any other valuation that has been placed upon the property by any other witness in this case?

A. I have arrived at it from my own conclusions.

Witness excused.

2186 W. H. ARNOLD being called on the part of the defendant and sworn and examined in chief by R. O. Brennan, Esq., testified as follows:

Q. Where is your place of residence?

A. 1032 west 20th street.

Q. City of Des Moines?

A. Yes, sir.

Q. How long have you resided in this city?

A. Came here in 1886, 25 years this fall.

Q. What has been your business during your residence in Des Moines?

A. Buying and selling property.

Q. All sides of the river?

A. Yes, sir. Mostly on the west.

Q. Have you handled any large estates for non residents during your experience as real estate agent in Des Moines?

A. I handled the Cranston estate and I handled estates for Mr. John Gibson a few years ago. That has been a number of years ago.

Q. Where is your office?

A. 201 and 03 Youngerman Block.

Q. And in the course of your business of buying and selling real estate have you become acquainted with the market value of real estate in Des Moines?

A. Yes, sufficient for my use and my clients at least.

Q. Does your business take you into the sale of business property as well as residence properties?

A. Yes, sir.

Q. You have handles a good many business properties in Des Moines?

A. Some, not as many as some, but some.

2187 Q. Have you made an inspection of the real estate of the Des Moines Gas Company?

A. Yes, sir.

Q. I wish you would tell the Master if you knew what the reasonable market value of that property was, say, about January 1, 1911.

A. As a whole?

Q. The questions first whether you know?

A. Yes, I think I know.

Q. I call your attention to the plat before you or blue print which is marked Exhibit 5 in this case, and call your attention first to Lots 9 and 10 in Block M of Scott & Dean's Addition and please state to the court what in your judgment was the reasonable market value of these lots at the time to which I have called your attention?

A. I placed these at \$50 a front foot, \$6,600.

Q. Now referring to lots 9 and 10 in Block B shown upon the plat Exhibit 5, please state to the Master what in your judgment was the reasonable market value of those lots on January 1, 1911?

A. \$55 a front foot for the frontage, 132 feet, \$7,160.

Q. Referring to lots 3, 4, 5, 6, 7 and 8, in Block B shown upon the plat Exhibit 5, please state to the Master what in your judgment—as the reasonable market value of these lots on or about January 1, 1911?

A. I took the values, the railroad values here, 264 feet and I put that at \$70. That is that would take in 4, 5, 6, 7 and 8, that would be \$18,480. And then I took 3, as about 44 feet and it is too long to back there for it for trackage, I valued that at \$40 a front foot making \$1,760 for that 44 feet.

Q. Just what 44 feet are you referring to?

A. Well 44 feet if you take as that plat shows it would be the north 44 feet of Lot 3. This is 1, 2, 3, 4, 5, and 6 and there 2188 is more lots on this side than that. In the east there are four lots and on the west six.

Q. I was asking you about the six lots in block "B", 3, 4, 5, 6, 7, and 8?

A. That would be \$20,240.

Q. Referring to lots 4, 5, 6, 7, and 8, in Block C, please state to the Master what in your judgment was the reasonable market value of these lots on or about January 1, 1911?

A. I valued these at \$26,400.

Q. Referring to lots 3 and 4 in Block k, shown on Exhibit 5, please state to the Master what in your judgment was the reasonable market value of those lots about January 1, 1911?

A. I valued those at \$90 a foot or \$11,800.

Q. Referring to lots 3, 4, 5, 6 and 7, in Block "T" shown on Exhibit No. 5, please state to the Master what in your judgment was the reasonable market value of those lots January 1, 1911?

A. \$4,000.

Q. Now Mr. Arnold please tell the Master what the aggregate value of the several tracts of real estate to which your attention has been called was on or about January 1, 1911?

A. Did you call my attention to 1, 2, 3, 9 and 10, in Block C?

Q. I will ask you now, about lots 1, 2, 3, 9 and 10, in Block "C"?

A. I placed those at \$75 a front foot or \$20,000.

Q. Did I ask you about lots 3 and 4 in Block K?

A. Yes, sir.

Q. Have you given separately the valuation upon all the real estate of the Des Moines Gas Company?

A. That you asked me, that I have looked at.

Q. What is the aggregate?

2189 A. \$96,200 unless I have made a mistake in figuring it up.

Q. You say now Mr. Arnold in your judgment as a real estate man that that is a reasonable market value of the property?

A. Yes, sir.

Q. That was \$96,240?

A. \$96,200 and something, yes.

Cross-examination by W. L. READ, Esq.

Q. Lot 3 in Block B you valued at \$40 a front foot?

A. Yes, sir.

Q. Why?

A. No trackage only in connection with the other.

Q. That is also true of lots 2, 3, 4, and 5, in Block C isn't it?

A. There is trackage here—you are asking about B now?

Q. About C. You say that lot 3 has no trackage. I say to you isn't it true that lots 2 and 5 have no trackage?

A. If there is no alley through there but it makes it longer—that is true but you make 132 feet back here about as long as you usually get when you get beyond that it is the distance from t-ackage makes it a little bad.

Q. Lot 4, is just as far from the track as lot 3 isn't it?

A. No.

Q. Why not, lot 4 is the third lot from the track on Market street and lot 3 is the third lot from the track on Elm street?

A. But other parties I understand own the ground between, hence, it is not accessible.

Q. You think a depth of four lots is too much to count for track-
age property so you leave off one lot?

A. Yes, sir.

2190 Q. Make it non t-ackage and then price it as non track-
age?

A. Yes, sir.

Q. That is the idea?

A. Yes, sir.

Q. What uses do you assume that property is fit and adapted
for?

A. For manufacturing and such purposes as its present use

Q. Storage?

A. Yes, sir.

Q. Manufacturing?

A. Yes, sir.

Q. It is well served by trackage?

A. Yes, sir.

Q. And I think you said that it was fit and adapted for the use
which it is now devoted to?

A. Yes, sir.

Q. Do you know any place over on the east side south of Court
Avenue west of Fifth street and north of Elm where one might obtain
as much as two blocks and a half of contiguously located property
for his use?

A. No, I do not.

Q. It is not over there?

A. I looked up about a year ago and had some maps, but I have
laid them away.

Q. Do you know any place in west Des Moines south of Mulberry
and west of 12th or 15th if you want to go that far west and north

of the Hubbell property where you could find as much as two blocks and a half of trackage property contiguously located?

A. No, I do not.

Q. It is not there is it?

A. I don't know. A. Not thoroughly. No I am just speaking—I don't remember, I don't know.

Q. Your impression is that there is no such body of land in that district?

A. It might be but I have not investigated, I don't know.

Q. What is the range of prices on Mulberry street and Vine street west in that district?

A. Where on Mulberry?

Q. Tenth and Mulberry, Seventh and Mulberry Eighth and Mulberry and along the same streets on Vine?

A. Well take it perhaps on Tenth and Mulberry some would make a difference on the south side and north, on the north there would be worth running back 132 feet would be worth \$400 say at 10th and Mulberry.

Q. Well Tenth and Vine, Eighth and Vine, along in there, what would be the range of prices?

A. Vine is north of Elm, between Elm and Cherry?

Mr. BRENNAN: Vine is the Rock Island railroad.

A. I have not sold any in there, I have figured with some party there, but I have not sold any. They offered me the Ellsworth property there,—that is Seventh.

Q. That is all right, speak of that.

A. They offered me that about that time for \$40,000.

Q. When was that?

Q. That is less than a year ago. I think last winter.

Q. What is it worth now?

A. Oh it is worth some more than that I think.

Q. That has been doing service with you quite awhile for cases of comparison hasn't it?

A. I don't know as I ever referred to it before.

2192 Q. It is worth more than \$40,000 now isn't it?

A. Merely a matter of judgment.

Q. It has been sold for more than that lately hasn't it?

A. I understood it, but I don't know it to be a fact.

Q. What did you understand it to be sold at?

A. I just understood it was sold, I don't know how much.

Q. \$60,000?

A. I didn't understand so.

Q. What did you understand?

A. Just that it was sold.

Q. As a real estate man you have had no curiosity to find out?

A. Not specially.

Q. The Sheurman property is held at what?

A. I don't know where that is.

Q. Adjoining the property you just mentioned on the west?

A. I have not examined into it.

Q. Have you examined into the Des Moines Ice Company property?

A. No, sir.

Q. What is the property of the Des Moines Manufacturing & Supply Company on the corner do you know where it is?

A. I never looked into that. How much do they have?

Q. It is the corner of *east* First and Court, it is more than a

Q. It is the corner of west First and Court, it is more than a quarter block nearly a half block I suppose.

A. Well I think that would be worth \$150 a front foot.

Q. The property just across the street on the north side of Court is worth what, that quarter block.

A. I don't know the names of the people over there, I could not refer to it by the names of the people.

Q. Refer to it by location, it is on the northeast corner of Court and First.

2193 A. Would it be a quarter block?

Q. 132 feet front.

A. On Court Avenue running back 132?

Q. Well goes back the depth of a lot, I suppose 132, yes.

A. I have not looked into this, I have some general idea. I would not make much difference with that and on the other side of the street.

Q. You are aware are you not that property has been purchased, the north side of Court for the use of Bentley & Olmsted Shoe manufacturing business?

A. I didn't know just where they did buy no sir.

Q. Do you know the price?

A. No, sir.

Q. For your information I will state to you the price was \$27,000 for the quarter block, \$222 a front foot. How does that sound to you?

A. Sounds pretty big.

Q. Too big does it?

A. Yes, sir.

Q. You have constantly used the term you have not looked into these properties. What do you do, what do you ascertain when you look into them what process, how do you make out the value?

A. What they are good for or what they are liable to become in the future. What they may be used for, the surrounding trackage if any and other things that are liable to come near them.

Q. You have looked into the Des Moines Manufacturing & Supply Company property?

A. No, sir.

Q. So you don't know what it is good for, you don't know what the future is likely to be?

2194

Q. That is all you have of the gas property isn't it?

A. Well I looked into that more, I looked into that matter.

Q. You went over there and looked at it?

A. Yes, sir.

Q. What did you determine in that respect as to the future of the property?

A. I think it has a future to it.

Q. You didn't see much future to it did you?

A. Yes, I think it has a future to it, yes.

Q. It is good trackage property isn't it?

A. Yes, sir.

Q. Specially good?

A. I don't know especially good, it is good.

Q. It is close in isn't it?

A. Yes, sir.

Q. It is how far from the new city hall?

A. About three blocks.

Q. That is not very far is it?

A. No.

Q. Close isn't it?

A. Yes, sir.

Q. How far from the new post office?

A. According to what you call across the river. Not very far though.

Q. Across the river and south one block to the north line of it?

A. Yes, to the north line.

Q. It is close in well located trackage property isn't it?

A. Yes, sir.

Q. It is good trackage property?

A. Yes, sir.

Q. What is the Krtazer Carriage property worth on the west bank of the river fronting on Vine street?

A. I don't know how the railroads are, I don't know how that comes in the railroad I know where it is, I don't know how the railroads strike it.

Q. It has trackage on one end of it.

A. I don't know the shape of the ground and all that that enter into it.

Q. What about the Waffield Pratt Howell Grocer Company?

A. I don't generally aim to testify to things I have not looked into have a general idea.

Q. I just asked you about the Warfield, Pratt Howell Grocery Co.?

A. That is the Grocery Company on Walnut?

Q. Yes. I am speaking about these properties without the buildings, the ground alone?

A. That is on the corner of First and Court isn't it?

Q. Yes, the south side of Court?

A. How many feet have they got there?

Q. I suppose they have 132 feet, how much is it worth a front foot? In other words what is property worth at that place by the front foot?

A. \$300.

Q. The Brown-Camp Company property on the north side of the street how much is that worth?

A. Well about the same across the street from it.

Q. About \$300 a foot. Suppose you had a commission to gather up under one ownership or for one person two blocks and a half of trackage property inside and you were limited to a district in east Des Moines south of Court Avenue west of Fifth and north of Elm and limited on the west side between the river and 12th or 15th street south of Mulberry and north of Tuttle, what would 2196 it cost to gather up at prevailing current prices?

A. Oh I don't know as I could answer just what it would cost. There would be a difference in those places there I should judge but just what it would cost I would not want to say.

Q. What it would cost would be a pretty fair index of what it would be worth?

A. Not necessarily so.

Q. Why not?

A. Because if you had a little piece or good fair piece and wanted to make out the square you could afford to pay more to finish out the square than you could the little piece of land. You can't always judge property by what you can buy it for or what you sell it for.

Q. It would cost more humanly speaking to gather up a large tract such as two blocks and a half in such locality than to buy one lot independently?

A. Yes, *sur*.

Q. How much more, half?

A. I would not wonder if it would cost half more because when you start to pick it up the other fellow raises on his.

Q. You will run across some people who will not want to sell?

A. Yes, sir.

Q. And run across some people that had a notion as to what the value was and you would have to pay him his price wouldn't you?

A. Might not want to sell.

Q. So that you figure you probably would have to pay double?

A. Well have more any way, 50 per cent more to pick up that amount.

Q. You haven't handled any properties over in the vicinity there of the gas company property have you?

A. Not very close there. A little over on 4th street, but 2197 nothing to speak of.

Q. You haven't paid any attention to it? Over there?

A. Oh yes.

Q. You haven't paid much attention have you?

A. Not much no, but just a general idea.

Q. Your activities have been mostly in west Des Moines haven't they?

A. Mostly yes.

Q. Mostly in residence property?

A. Mostly.

Q. What business properties have you been interested in selling and handling as agent?

A. I have handled and sold to Mr. Hubbell the Ellingston prop-

erty south of Elm street near the track. Have some holdings on Mulberry.

Q. That was how much property?

A. Oh quite a little frontage.

Q. How much consideration?

A. \$75,000.

Q. Aside from that what have you handled?

A. I have handled property on west Walnut street, some on Locust street some on Mulberry, some years ago, I have not late years, nothing very much in there.

Q. Of late years prices have run away from you haven't they?

A. No I don't think they have. They have got higher, I don't think they have run away from me.

Q. I was just wondering whether you have been able to keep up to them or not, whether you always try to buy at low prices. There has been a good deal of property handled in there?

A. Yes, sir.

Q. You haven't handled it all?

2198 A. No, sir.

Q. In fact mighty little of it haven't you?

A. Very little of it yes.

Q. You haven't handled any over in the east Des Moines district?

A. I have had something to do with some over there, I have not been agent for any properties except lots and there are several you can pick up there at your own price on Fourth street. On east First street over there are several little houses and lots and on Fourth street south little houses and lots and a year ago I took about a half a day or a day to look up matters from Fifth street to Ninth street along trackage and prices on them and I tried to find that map.

Q. From Fifth to Ninth on the east side?

A. Yes, sir.

Q. Where did you find any trackage property in there?

A. All along on the track I found different lots, not big pieces I could buy together.

Q. Of course that district over there is not a retail district, no depend for small lots?

A. Not a retail. I picked up several there, I tried to find that plat, I didn't want to go over it again to see the places given me, but it was much lower than——

Q. West Des Moines?

A. And then I gave you on the gas company too.

Q. By the bye, how did you figure out the gas company valuation, precisely the basis and method of determining value you have given us on the gas property?

A. There is only one way I know of and that is to draw to some extent on your imagination what the thing is going to be in the future, what it has been in the past and the uses that it can
2199 be used for in the process of development.

Q. And from that somehow in some manner you evolve prices and values for you?

A. Yes, sir.

Q. How do you do it, how did you do it in this case?

A. I just told you.

Q. I don't understand.

A. Just the same process, take what it had been and the price that it is liable to be in the future chance of future growth and uses to which you can use it in the meantime and income you are liable to get out of it and the interest on your investment in the future. No other way I know of.

Q. You didn't figure this from the point of view of the utility to a person who wanted to use so much as the entire tract of the gas company?

A. Oh yes, what it is used for now yes.

Q. What use did you make of that thought in arriving at your valuation?

A. From the using it and it is perhaps to continue to use it.

Q. What conclusion did you reach as to the value of the use of the gas company?

A. Perhaps it would pay them a percentage on that investment in the growth of it.

Q. Don't you think a good way to have determined something about value was to have undertaken to gather together so much property in the same locality equally closely situated in?

A. No, I don't believe that would be a good way to do it.

Q. Why not?

A. Well it would not be the true way.

Q. Why wouldn't it be the true way?

2200 A. You might find difficulty in getting that in one locality now. There have been other tracts.

Q. The gas company is using this company now isn't it?

A. Yes, sir.

Q. It seems to your understanding to serve the company's use, the property seems to be well enough adapted?

A. Oh yes.

Q. Suppose something were to happen that would deprive the gas company of the use of this property and it was obliged to get another property equally large and equally convenient, equally adapted for its service, be equally convenient I mean situated no more remotely from the center of the city than it is. Now I asked you some time ago what it would cost to procure that much property in some of these other localities and you didn't answer me.

A. I don't know where I could get it.

Q. Take it in the west Des Moines district which I named then it would cost two or three times as much wouldn't it?

A. I don't know what could be bought. What I sold sold for a good deal less.

Q. You are talking about the Ellingson property?

A. Yes, sir.

Q. That has been sold since that time at a good deal more money?

A. Oh no, it has been resold. I don't understand the Ellingson property has ever been sold.

Q. It would cost very much more than it would cost in east Des Moines, the same locality I have described?

A. I have that thought in mind if they ever abandoned it it could be sold to anybody else.

Q. I am not supposing an abandonment of it. I asked
2201 you if it would not cost a great deal more money to buy an equal area of ground in west Des Moines between the river and Fifteenth street and south of Mulberry and north of Tuttle two blocks and three quarters wouldn't it?

A. Yes, it would cost more on the west side, yes.

Q. How much more?

A. Oh cost more, considerably more.

Q. Two or three times as much?

A. Yes, sir.

Q. More than that wouldn't it?

A. Well I don't know where you can get it, that is the long and short of it.

Q. Well pay your money until you get it?

A. A man would say he didn't have to have it, he would go out farther.

Q. At any rate it would cost two or three times as much?

A. A man would say he would not have to buy it, would go out farther, a man has the privilege you know.

Q. Now go over in east Des Moines in this district I have described to you and assume a requirement for two and three quarter blocks or two and one half blocks contiguously located. Won't you have to pay for it now more than the valuation you have placed on this gas property?

A. I doubt it.

Q. Where will you get it, point out on the map where you will get it.

A. As I told you I went over that very question a year ago and looked into it and I could at that time buy and I think——

Q. You could have bought one or two together?

A. In pieces all along there.

2202 Q. I told you two blocks and a half or two and three quarters contiguously located. You don't answer me by saying you could buy isolated lots. I inquire again where would you secure two blocks and a half or three quarters contiguously located?

A. I tell you again that I have not looked into it hence I don't know where I would go to get it.

Q. From your knowledge of that district in east Des Moines you don't know where you would find it do you — it is not there?

A. Well, I don't know, I would not say that. I would not say it is not there. The chances are it is there but I have not looked it up.

Q. Look at this map Exhibit 38 and see if you recognize that and recognize the buildings and institutions in that district and then say in view of that whether you can point out where you can obtain so much ground there?

A. I have not looked into it, I don't know.

Q. I ask you to look into it now.

A. Before I did that I would want to go see it to satisfy myself. I heled up my hand when I came in here to swear to the whole truth.

Q. You came in here to swear to your opinion?

A. Yes, as I view it, you are asking things now I know is only guess work.

Q. Speaking from your present information you don't know where you would go to find such a tract of land?

A. I have not looked in the matter there to find out.

Q. You have told me that several times, but you don't know now where you could go to look for it do you? You don't know of any such tract of land on the market.

A. No, I don't know to say that was on the market.

2203 Q. You know pretty well over there the different institutions, within the district don't you?

A. Yes, sir.

Q. There is the Des Moines Manufacturing & Supply Co., Eagle Iron Works, American Linseed Works, and the different institutions there, Nichols & Shepherd, you know of those?

A. Yes, sir. You may go down along east——

Q. That ground is pretty well taken up isn't it?

A. Yes, sir.

Q. Somebody said this morning that there was at least seventy five per cent of it taken up, that is about true isn't it?

A. I would think so yes.

Q. These institutions over there are going concerns as far as you know and for all we know they will keep on going won't they?

A. I hope so.

Q. Nobody offering to sell out over there, none of these institutions.

A. Not that I know of.

Q. Now if you had a commission to buy two blocks and a half or two blocks and three quarters of ground over there in that district and you were to go and gather up paying the current prices *prices* that would be sufficient to induce the people to sell, pay prices that were asked, when you got through you would have a good deal more money in that two blocks than you have given as the price or value of the gas company property wouldn't you?

A. I don't know that to be a fact.

Q. What is your opinion about that.

A. I don't know what it can be bought at.

Q. You have no opinion?

A. I have an opinion but I doubt if I could get it at all
2204 I don't think — would cost any more.

Q. I wonder why you say that. Tell me the thought in your mind.

A. Because I don't believe they are worth any more.

Q. I don't get that distinctly either?

A. If you will put it so I can get at it I will try to inform you to the best of my knowledge.

Q. What makes up worth?

A. I told you that. The future prospect and past and present uses.

Q. You have made a statement that if you could buy such a tract of ground at all you don't believe it would cost any more than your appraised value of the gas property, I ask you why and you said because it was not worth any more than that. Do you mean by that to say that people would be willing to sell at such prices?

A. I don't know what they would do, that is another question.

Q. Is there a difference between what property is worth and what people who own it are willing to sell it for?

A. Yes, difference in values. A great many people ask more than their property is worth. Some don't want to sell it. That don't establish values always.

Q. What does establish values in your estimation?

A. I have told you three times.

Q. Past present and future?

A. Yes, sir.

Q. If you have a man who wants to buy property and find a man who wants to sell, if they come to an agreement then you have fixed a price?

A. Yes, sir.

Q. You have fixed a value of it have you?

A. Not necessarily so.

2205 Q. What is the difference between value and price?

A. Just as I explained awhile ago I might have three quarters of a block and pay a man a big price to finish the square out or I might have frontage or inside track and might want to get on the corner, all these things come in.

Q. These things are abnormal. What is the difference between price and value, is there any difference?

A. I think many people sell for less than value and some sell for more than value. For instance if a party had a big mortgage on a place I might buy for less than it was worth.

Q. That would be an abnormal condition.

A. I don't know, those conditions exist every day, we meet them.

Q. If you find enough of them of course you would have glutted market, but going back to the question you are undertaking to say you would not have to pay more for two blocks and a half than the price you have given because it was not worth that.

A. Once you go north——

Q. I am not going north, we are keeping within the district.

A. I say I don't believe if I could get the ground I would have to pay more than that, that is what I said.

Q. If you could get the ground for that price naturally you would not. Could you get the ground for that price?

A. I haven't looked into that, I don't know.

Q. You don't know where there is such ground?

A. No.

Q. You said awhile ago to reduce to one ownership so large a tract would probably — 50 per cent more?

A. More than what?

Q. More than the price for isolated lots.

2206 A. You misunderstood me, I said to find that would cost 50 per cent more to get together property to make that would be that much. I didn't mean to convey the idea that this piece of ground because of that is worth 50 per cent more than I put on it. I have taken that into consideration.

Q. I didn't intend to say anything to increase the price of the particular property, I was talking about prices generally. If this piece of property was in small tracts it would not be worth as much.

A. It has value in it because a large tract.

Q. You have only considered it in quarter blocks and in one case an isolated lot?

A. One case a whole block I think. One whole block.

Q. And one isolated lot?

A. Two quarters.

Q. And one isolated lot?

A. Yes, sir.

Q. That is on the theory more than 32 feet was not trackage property.

A. Well not necessarily, the back end is not as valuable.

Redirect examination by R. O. BRENNAN, Esq.:

Q. You have I take it from the length of time you have resides in the city and by virtue of your occupation, you have been over the city some have you not?

A. Yes, sir.

Mr. READ: I want to suggest that you do not lead this witness, let him answer the questions.

2207 Q. Counsel has confined you exclusively to a little district over there in the vicinity of the gas works. Now let's go outside of his favored zone just for a few minutes and tell the Master if you know where there are other sites for manufacturing purposes?

A. Further east you can get them.

Q. Say within a radius of a mile or mile and a half of the present gas works?

A. You can get blocks in along about east 20th and 22d and down in there.

Q. What is the general range of prices of real estate in that vicinity?

A. That is very much less that would be five to ten dollars a front foot.

Q. Is the property you now refer to contiguous to railroads?

A. Yes, sir.

Q. Now going east of the manufacturing plant of the gas company are there any available sites a mile or a mile and a half east of that point?

A. Out on the Rock Island, branch of the Rock Island about 20th there are several large chunks in there can be bought.

Q. Several large tracts you say?

A. Large blocks, yes.

Q. That would be 20th street, that would be how far from the east line of the gas company's property?

A. That would be over a mile east. About 14 blocks makes a mile does it not.

Q. Well I understood 16.

A. Be something over a mile at least.

Q. In the neighborhood of a mile would it not?

A. Yes, sir.

2208 Mr. READ: We object to this line of inquiry because it is immaterial and not any aid in any way, they are differently and more remotely situated properties.

Q. Proceeding north of the Rock Island tracks say up along the Des Moines & St. Paul Railroad company right of way, and the Chicago Great Western right of way, have you in mind any tracks of ground that would be suitable or adaptable for manufacturing purposes?

A. I think you can find a good deal, I know they have not sold all of them.

Q. Well do you know of any sites in that part of the city which may be utilized for these purposes?

A. Blocks can be bought there in T. E. Brown's official plat, somewhat south there is one tract I think you can buy most of it ten acres I think would be suitable for it right near University Avenue and the Great Western.

Q. What is acreage worth in that part of the city?

A. Oh lots of land in there would be worth perhaps \$10 a front foot, eight to ten dollars.

Q. That is north Avenue on the east side of the river?

A. Yes, sir.

Q. That is where you refer to Mr. Arnold, North Avenue?

A. Yes, sir.

Q. Now pursue the same course north and west going up into Highland Park out in that way, are there any manufacturing establishments?

A. On the Interurban or Urbandale.

Q. I mean on the interurban railway?

A. Yes, sir.

Q. Go out north on the interurban we have the Flint
2209 Brick works and the other manufacturing establishments do we not?

A. Yes, sir.

Q. And then south Des Moines, what do you say as to south Des Moines having any sites?

A. Plenty of them I should think.

Q. Which could be used for manufacturing purposes?

A. I should think there would be plenty of them.

Q. And which would be contiguous to railroads?

A. Yes, sir.

Q. In other words, Mr. Arnold, if we were to start out today to
- construct a gas works and this site to which attention has been

called was not available would you be able to find another site in the city of Des Moines?

A. I think I would.

Q. Now I will ask you if the valuation which you have placed upon the real estate of the Des Moines Gas Co. exclusive of the buildings and improvements thereon represents your independent judgment uninfluenced by the valuation that others have placed upon it?

A. It is my own judgment.

Recross-examination by W. L. READ, Esq.:

Q. I take it you have been stating that there are properties, track-age properties within the corporate limits of Des Moines that are cheaper in price than those over here of the gas company?

A. Yes, I think there is.

Q. That is the purport and effect of your testimony wasn't it?

A. Yes, sir.

2210 Q. Now of course you don't undertake to say that you know anything about the requirements of the gas company, what kind of property it would need?

A. No.

Q. Or adapted to it?

A. No, only a general idea of it.

Q. When you say you know that, you would want to look into it, and find property for the gas company, all you mean to say is that you could find a piece of ground that if it was adapted to the situation and other places that a gas plant could be put on it?

A. Yes, sir.

Q. But whether it would be the best practical place to put a gas plant you don't undertake to say?

A. I have not looked into that no sir.

Q. You don't know anything about that subject?

A. No.

Q. You could not look into that subject?

A. I am not posted on that subject.

Redirect examination by R. O. BRENNAN, Esq.:

Q. You don't know anything peculiar about the gas works requiring it to be say next door to Harris-Emery's or Younker Bros., or anything of that sort do you. Nothing occurs to you as a reasonable man to suggest anything of that sort is there?

A. No.

Mr. READ: You haven't looked into that subject either.

Witness excused.

2211 A. S. WILCOXEN being called on the part of the defendant and sworn and examined in chief by R. O. Brennan, Esq., testified as follows:

Q. You reside in Des Moines do you?

A. Yes, sir.

Q. Where is your residence?

A. 1730 Arlington.

Q. How long have you lived in Des Moines?

A. Since 1871.

Q. What has been your business since you have been in Des Moines

A. The last 18 or 20 years real estate.

Q. What is the character of the real estate which you have handled or dealt in?

A. Well some business property, some outside property, general real estate.

Q. Bought and sold for yourself and for others?

A. Yes, sir.

Q. And have handled some business property?

A. Very little.

Q. But some.

A. Yes, sir.

Q. You keep in touch with sales of business properties?

A. I try to.

Q. I will ask you Mr. Wilcoxon if in the course of your business as a real estate man you know what the reasonable market value of real property was in the city of Des Moines say about January 1, 1911?

A. I think so.

2212 Q. Do you know the property of the Des Moines Gas Co. in east Des Moines?

A. Yes, sir.

Q. How long have you known that property?

A. Well for a great many years.

Q. Have you bought or sold or had listed with you by the owners any property adjacent to the property of the Des Moines Gas Company?

A. Yes, sir.

Q. I will ask you if you know what the reasonable market value of the real estate of the Des Moines Gas Company was on or about January 1, 1911, exclusive of the buildings and improvements thereon?

A. I think so.

Q. Now if you will refer to the blue print or plat marked Exhibit 5 before you, I wish you would take the property shown thereon and known as lots 9 and 10 in Block M and tell the Master what in your opinion was the reasonable market value of these lots on or about January 1, 1911?

A. \$7,000.

Q. Referring now to lots 9 and 10 in Block B, Scott & Dean's Addition shown by the plat, please state what in your judgment was the reasonable market value of these lots at the time referred to?

A. \$6,000.

— Referring to lots 3, 4 5, 6, 7 and 8 in Block B shown by the plat Exhibit 5, tell the court what in your judgment was the reasonable market value of these lots at the time referred to?

A. \$20,000.

Q. Referring now to lots 1, 2, 3, 9 and 10, in Block C shown upon the plat, please tell the Master what in your judgment was the reasonable market value of these lots at the time referred to?

A. \$17,000.

Q. In that same block, Block C I wish you would refer to lots 4, 5, 6, 7, and 8, shown upon the plat and tell the Master what in your judgment was the reasonable market value of these lots at the time referred to?

A. \$22,000.

Q. Referring now to lots 3 and 4, in Block K of Exhibit No. 5, state to the Master what in your judgment was the value of those lots at the time referred to?

A. \$10,000.

Q. Referring to lots 3, 4, 5, 6, and 7, in Block T shown on Exhibit 5 please state to the Master what in your judgment was the reasonable market value of these lots at the time referred to?

A. \$3,000.

Q. Having given the values of the respective pieces of property to which your attention was called I wish you would tell the Master now what the total or aggregate value of the real estate of the Des Moines Gas Company was exclusive of buildings and improvements say on or about January 1, 1911?

A. \$85,000.

Q. I believe you have said the valuation you place upon this property is based upon your general knowledge of real estate values gained by your experience in the real estate business in Des Moines?

A. Yes and what like property is worth in that vicinity.

Q. And what property would sell for in that vicinity

2214 A. Yes, sir.

Cross-examination by W. L. READ, Esq.:

Q. Have you considered what the property as a whole would sell for?

A. No, sir.

Q. It is only when cut up in piece mea-, this way that you have considered the price at all?

A. Yes, sir.

Q. Then you have no notion as to the value, at least you are not prepared to value the property as a whole?

A. Well that is the total valuation of the property in my judgment taken it as a whole.

Q. You answered my question a moment ago you had not valued the property as a whole?

A. Well my estimation of the property valued as a whole is \$85,000.

Q. Did you consider the property as a whole for the purpose of valuation?

A. No, I took it in detail.

Q. Why did you do that?

A. Because I thought it was the more just way to arrive at a conclusion of the value of the property.

Q. More just from what point of view?

A. From the fact that some of it was worth more than others and *and* some less.

Q. What difference would that make when you consider it as a whole?

A. I considered it as a whole when I got through the estimates on the pieces.

Q. That is simply the aggregate of your piece meal estimation?

2215 Q. What concern have you, why should you concern yourself with the value in piece meal when the question is what is the property worth as a whole?

A. \$85,000.

Q. But why trouble yourself to find out what the piece meal valuation is when you are asked to tell what the property is worth as a whole?

A. Because I was asked to find out what in my opinion was the value of the property describing it by lots and I priced it that way.

Q. By lots?

A. Yes, sir.

Q. You seemed to have included several lots?

A. Yes, the sum total.

Q. You didn't consider it by lots?

A. Indeed I did.

Q. For instance you have the valuation of lots 3, 4, 5, 6, and 7, Block T?

A. Yes, sir.

Q. You valued these by lots did you?

A. No, sir; I didn't that particular piece of property.

Q. You valued that as a whole?

A. As a whole because it is very shallow.

Q. Lots 3 and 4, in Block K did you value those two lots as a whole or did you value them separately?

A. No, sir; I think I considered those as a whole.

Q. Are they worth more the lots separately or taken as a whole?

A. Lot 4 is worth more than lot 3 if taken separately.

Q. Lot 3 is worth how much?

A. About half the price of fourt.

Q. Will you answer my question now are the two lots taken together worth more than the separate lots, for instance Lot 3,

2216 you say is worth about \$2000, how much is lot 3 worth according to your valuation.

A. Worth about \$3000, \$3500 possibly.

Q. Lot 4 taken separately and without regard to Lot 3 is worth how much?

A. Worth from \$6000 to \$7000.

Q. Why is Lot 3 worth less than Lot 4?

A. Because it hasn't the trackage.

Q. Lot 3 is worth \$3000 and Lot 4 worth \$7000.

A. Yes, sir.

Q. Why then is lot 3 worth less than lot 4?

A. Because it has not the trackage.

Q. You have assumed now that the unit of greatest availability there would be a single lot have you?

A. No, I can't say that Mr. Read.

Q. That is not a retail district over there is it?

A. No, sir; it is not.

Q. Such demand as there is over there is for larger tracts than a single lot as a rule?

A. Well I don't know as to that.

Q. Well do you know to the contrary, what do you know about it?

A. No, generally consider about 66 feet as a pretty good lot for factory site or for warehouse.

Q. So you assumed then that a larger tract over there is no more in demand and hence a greater value relatively than a smaller one? In other words you assume that 66 feet frontage is the normal size.

A. Yes, sir.

Q. For factory and warehouse and storage purposes.

A. Yes, sir.

2217 Q. Do you know anything about what the fact is as to that. That is I mean what do you know about that being the fact?

A. Well that is generally the size they are sold in.

Q. In Block C Lots 4, 5, 6, 7, and 8 were they separately valued or valued together?

A. They were considered together.

Q. Why did you consider them together?

A. Because it is a quarter of a block making 132 feet square.

Q. Wasn't that too large to give them their greatest value according to your theory?

A. They gave got the same trackage the other has.

Q. They haven't got trackage have they according to your theory?

A. Yes, six has got trackage on it.

Q. Lot 5 hasn't trackage on it?

A. No, sir; nor four.

Q. Nor three nor two?

A. N-, nor three nor two.

Q. Well you considered them together anyway?

A. Yes, sir.

Q. Is that true of the other properties?

A. Yes, sir.

Q. All of them?

A. Yes, sir.

Q. All considered together?

Q. Yes, sir.

Q. By their value what do you mean?

A. Do you mean how I arrived at the value of the property?

Q. No, I mean what conception you have of value, what does value mean as you use it?

A. Well what property can be bought and sold for.

2218 Q. Under normal conditions.

A. Yes, sir.

Q. A willing buyer and willing seller?

A. Yes, sir.

Q. Turning now a moment to the idea of the property as a whole do you think this property as a whole, that is say taking practically two blocks and a half or two blocks and three quarters lying contiguously and being trackage property and being capable of serving some establishment for large area such as the gas company serving such a demand is worth more as a whole than its constituent parts? How do you find its greatest value?

A. Well I don't know as I understand your question Mr. Read-

Q. This property is over there and it is devoted to this use of the gas company.

A. Yes, sir.

Q. It may be assued that the gas company requires that much property now. If some other concern were coming to Des Moines and wanted that much ground located on trackage, trackage property would that ground sell for more because of the fact that it is in one body or would it be worth less? In other words is it worth anything to have so much property as that under one ownership?

A. Yes, it is probably worth more than it otherwise would be. If you will find a man that wants that much ground.

Q. Suppose you were to start out with a commission to get together over in east Des Moines in the district lying south of Court Avenue and west of Fifth street and north of Elm, what price do you suppose you would have to pay for it to get together property under one ownership having in mind now the uses that are being made of the various properties over there.

A. Well you are restricting that to a very narrow locality, I don't know whether a man could find it or not.

Q. Well do you think you could in that district?

A. Oh I could find plenty of pieces over there, but whether I could get together two blocks and a half together contiguously I don't know.

Q. Could find plenty of small pieces?

A. Oh I could pick it up, simply a case of what you have got to pay for it.

Q. How long would it take you to do that do you suppose?

A. Oh I don't know.

Q. What pieces could you find over there?

A. There is one the corner of Third and Market street- over there, I think Third and Market.

Q. That is the one you called Mr. Hauge's attention to?

A. I guess so, I didn't know he testified in regard to it.

Q. That is one piece you have in mind is it?

A. Yes, sir.

Q. Who owns that?

A. By the name of Hyland.

Q. Live here or away?

A. Lives here.

Q. What frontage is there there?

A. It is 132 feet frontage of 66 feet.

Q. Frontage on what street?

A. Third street.

Q. And the side on the track?

A. Yes, *sur*.

Q. Well what other piece?

A. That is the only trackage piece I have for sale there.

Q. That is the only trackage piece?

2220 A. Yes, sir. I have some property down below the gas works—

Q. I asked you to stay within the limits, north of Elm street.

A. I am within the limits. I have three pieces there on Raccoon street, Raccoon and Third 132 feet square in there taken as a whole can be bought for \$7800.

Q. Raccoon street is south of Elm street isn't it?

A. I don't know whether it is or not, lays right across the alley from the—

Q. Raccoon street is the street south of Elm street isn't it. One tract on Raccoon street.

A. This is the property in here. This is the gas company property here.

Q. It is the southeasy corner of Block M?

A. Yes, sir.

Q. You say this property you have this listed?

A. Yes, these three pieces here.

Q. That is not trackage property?

A. No.

Q. I asked you to confine yourself to the district north of Elm west of Fifth and south of Court?

A. I don't think you can get it in there unless you have the right of eminent domain.

Q. Why can't you get it?

A. Because largely controlled by railroads and they won't sell it.

Q. There is the Des Moines Manufacturing & Supply Co. property in there?

A. Oh yes they might sell there.

Q. There is all of Block "D" isn't there?

A. "D" yes.

Q. All of Block "I" isn't there?

2221 A. There comes the railroads in there, I don't know how much ground they have got.

Q. Those two blocks in there what would it cost to gather up those two blocks?

A. I don't know what it would cost to gather them up.

Q. It would cost a good deal more than your valuation on the two blocks of the gas company?

A. Yes, they are worth more up here than down there.

Q. How much are they worth?

A. This ground in here I think is worth, probably 132 feet in

there is worth—this is Court Avenue over here and that ground in there is probably worth \$200 a front foot.

Q. You are referring to the property of the Des Moines Manufacturing and Supply Co.?

A. Yes, sir.

Q. The northwest quarter block of Block "D"?

A. Yes, sir.

Q. \$200 a front foot?

A. Possibly that.

Q. What is the other the northeast quarter block worth?

A. Well I don't think that is worth as much money.

Q. Why not?

A. Not as desirable property.

Q. Why not as desirable.

A. I don't think it is as desirably located.

Q. What is the difference in the location, what makes it less desirable?

A. Well I think this is better business property.

Q. What makes it better?

A. This is simply my judgment.

2222 Q. What qualities or characteristics, what quality makes that better the one than the other?

A. I think it a better location.

Q. Why?

A. Because I think so.

Q. Is that as far as you go with it, any reasons why?

A. Yes, sir.

Q. What reasons?

A. Because I think it better located.

Q. What is property in Block I worth fronting on Grand Avenue?

A. Probably \$150 a front foot.

Q. Why that \$150 and the other corner \$200?

A. The same reason I gave before I think better located.

Q. Do you know anything about what holding prices are of this property?

A. I do not.

Q. What is property worth on the north side of Court Avenue on the northeast corner of First and Court, that quarter block in there 132 feet?

A. It is worth about the same as this here.

Q. About \$200?

A. Something like that.

Q. That is the property purchased by Bentley & Olmsted?

A. I don't know.

Q. Don't know whether that property was purchased at \$27,000?

A. I don't know.

Q. You don't know anything about property over there?

A. I don't know what that property was purchased for.

Q. Do you know anything about the holding prices of property on Court Avenue, First to Fourth?

2223 A. I do not.

Q. Do you know anything about prices on Walnut street east First to Fourth?

A. No, I have none for sale.

Q. On east Locust street First to Fourth?

A. Only in a general way.

Q. Do you know what the holding prices are?

A. I think about \$150 to \$200 a front foot, \$250.

Q. That is the maximum is it?

A. I think so, \$200 to \$250.

Q. Do you know what the city paid for the city hall site a few years ago?

A. I don't know only what was in the paper, I suppose \$78,000.

Q. That was about 100 feet frontage on Locust street?

A. I don't know the frontage, I presume it is.

Q. Ever try to figure out what that would be per front foot?

A. No, sir.

Q. About \$390 for the frontage on Locust street and the same for frontage on Grand Avenue wouldn't it?

A. It runs clear through, yes, one side to the other. It would be about that price I expect. I hadn't figured it out.

Q. Do you know any sales on east Locust street in the last year?

A. No.

Q. The last two years?

A. No.

Q. Any sales on Walnut street the last two years?

A. No.

Q. Where is your office?

A. 607 Iowa Loan & Trust Building.

Q. You say you have handled some inside property?

2224 A. Yes, sir.

Q. You said not much though?

A. Yes, sir.

Q. What property have you handled?

A. Well I was instrumental in the sale of the property to the C., B. & Q. railroad company there on Seventh street.

Q. That the only one?

A. The only recent one.

Q. What is the bulk or aggregate of your real estate transactions last year?

A. It varies, \$115,000 to \$130,000, some years only \$40,00- or \$50,000.

Q. When was the Q. property purchased?

A. This year.

Q. What time this year?

A. I think probably May some time probably May.

Q. How much property was there?

A. I think they bought 132 feet square, was a piece 132 feet square.

Q. On the east side?

A. No, sir.

Q. Where?

A. Seventh and Market.

Q. Are you acquainted with values over on west Vine street, Seventh street, Eighth street and along in there?

A. Some little.

Q. Do you know the Sheruerman property?

A. I know its location, yes.

Q. Do you know the value of it, know the holding price?

A. I do not.

Q. Did you hear it was \$50,000?

A. No, sir.

2225 Q. Do you know the Illingston property?

A. I know the location of it.

Q. Has it been sold lately?

A. I was told it had been sold, yes.

Q. What price?

A. I think it was \$50,000.

Q. Do you control any property along there?

A. No, sir.

Q. Haven't been interested in handling any of these properties there?

A. No, sir.

Q. What is the property of the Kratzer Carriage Company worth per front foot, trackage front foot?

A. I suppose that is worth about \$400 a front foot.

Q. That is just across the river from the gas company?

A. Yes, sir.

Q. What is the Brown-Camp Hardware Company property worth, the ground?

A. About \$500 a front foot.

Q. The Warfield Grocer- Co.

A. Right across the street from it, about the same.

Q. About \$500?

A. Yes, sir.

Q. You said you had some properties near the gas company listed with you, what properties do you refer to?

A. These properties in Block M.

Q. The ones you have already referred to?

A. Yes, sir.

Q. Have you any others than those?

2226 A. Nothing excepting this one that belongs to Mr.—well the corner of Third and Market.

Q. That belonged to Mr. Hyland.

A. Yes, sir.

Q. This piece and three pieces in Block M?

A. That one there and three pieces in Block M.

Q. What three pieces in Block M the south half?

A. Yes, sir.

Q. Non trackage property?

A. No, sir; not trackage property.

Q. Where is the other piece?

A. On Third street.

Q. On the west side of Third street?

A. Yes, sir.

Q. South of Market?

A. Yes, sir.

Q. A quarter block there?

A. No, sir; 66 feet. The other belongs to the railroad company.

Q. These two pieces are the only pieces that you have listed with you?

A. In that locality yes.

Q. And so far as you know the only pieces for sale.

A. Yes, as far as I know the only pieces for sale.

Q. Precisely how do you get at this valuation, how do you do it, what were your assumptions, what was your basis?

A. Well I took the valuation there on like property what it could be bought for.

Q. That is the first proposition. Now where is the like property?

A. This specific piece of property I have mentioned, Mr. Hyland's property on Third street.

Q. You call that like property?

A. Yes, sir.

2227 Q. You distinguish between the Des Moines Manufacturing property and the gas company property didn't you?

A. Yes, sir.

Q. But don't distinguish between the gas company property and this other?

A. No, sir. That is down below the railroads farther.

Q. The property on Market street was listed with you at a certain price?

A. This property, yes.

Q. At what price?

A. \$7,000.

Q. That was so much a front foot?

A. No, sir; it was not the front foot at all, listed by the lots. If you take 132 feet frontage, take the trackage part of it—

Q. There was a lump price given?

A. \$7,000.

Q. You said that property was the same as the company's property, like property?

A. For trackage, yes sir.

Q. So far as the gas company property was trackage?

A. Yes, sir.

Q. And then you placed the same valuation on the gas company property?

A. Not entirely no.

Q. Well so far as the gas company's trackage property was concerned?

A. I took that as a basis, yes.

Q. Well did you call the gas company property worth more or less?

A. I think more.

Q. What particular properties and lots or groups of lots did you call more and what less?

A. Well I think I took it by the trackage.

Q. The trackage property you called the same?

A. Practically the same, yes.

Q. And the property that you considered non trackage, you called it less?

A. Well I considered it as a quarter block.

Q. Was there some of the gas company property which you did not call trackage property?

A. Yes, sir.

Q. What?

A. This down here in M.

Q. Name them b- lots?

A. It is 9 and 10 in M.

Q. Is that all you did not consider as trackage property?

A. No, sir, I think some of these lots in here 9 and 10 in B I did not consider trackage property.

Q. Nine and 10 in Block B did you call that trackage property?

A. I don't think so.

Q. There is a track on Elm street isn't there?

A. Yes, and track on Market.

Q. Lot 10 in Block B and lot 9 in Block M front on Elm street don't they?

A. No, sir.

Q. Abut on Elm street.

A. Oh 9 and 10 in M, yes that is right.

Q. Your lot on Market street and Third has what railway track along the side of it?

A. Has the Rock Island.

Q. How do you figure out that property trackage property and these others not?

A. I see that I was mistaken, I didn't notice this railroad in there, this is trackage property.

Q. Now to go back was there any gas company property you did not consider as trackage property and if so what, give the lot number?

A. No, sir; I guess there was none of it.

Q. Then the basis of the valuation was the price at which you had listed with you the Hyland property, the property at the corner of Third and Market?

A. Substantially so.

Q. What do you mean by substantially?

A. Well I took that as the basis of what the property was worth.

Q. What was the next step?

A. I took that as the basis of what the property was worth.

Q. What use did you make of that basis?

A. Considered the value of the other property on like trackage.

Q. Did you call the trackage the same or was it dissimilar in your consideration?

A. Nom because the ground laid better in the gas company, I don't know whether it has been filled or what.

Q. Made some allowance for the fact your ground was low ground below grade and the gas company property up?

A. Exactly.

Q. What allowance did you make for that?

A. I am not prepared to say what allowance, I took that into consideration.

Q. Anyway the basis was the price at which the owner valued the Market and Third street lots with you?

A. Yes, sir.

2230 Q. And that was all there was to it, I mean that is the method and basis by which you arrived at your valuation?

A. Yes, and this other property down there in Block M could be bought a quarter block for \$7,800 I took that into consideration also.

Q. That was non trackage property.

A. Yes, sir; non trackage property.

Q. Used that to put the price down?

A. No, sir; I tried to consider it altogether.

Q. The basis of your valuation of the gas company property was the price at which there was listed with you the 66 feet on the corner of Market and Third street- and the price of the two quarter blocks in Block M?

A. Yes, sir.

Q. Now what price did you make in the gas property relatively you have the same area which was concerned, practically the same?

A. What do you mean, in taking into consideration a large block?

Q. Well a particular quarter block or particular lot. For instance a 66 foot lot on the corner of 3d and Market was listed with you for \$7,000?

A. Yes, sir.

Q. Now go over in Block C and you will find lot 7, is on east Second and abuts on Vine street, what did you call that worth?

A. I didn't consider that, I took the two lots together.

Q. What two lots?

A. Seven and eight in C.

Q. What did you call the two together worth?

A. \$11,000.

Q. How much did you call seven worth alone?

2231 A. I didn't consider that alone Mr. Read. I took the half block by itself, both got equal frontage in there and priced it at \$22,000.

Q. You didn't call lots 7 and 8 worth twice as much as you call the one 66 foot lot over in the other block east, did you?

A. No, sir; I did not.

Q. Why did you call it less?

A. Because seven has trackage and 8 has not.

Q. Suppose you were to divide lots 7 and 8 north and south so as to make two 66 foot lots facing north, what about them?

A. Well it would be trackage frontage that governed the price then, be worth practically the same.

Q. Have 132 feet frontage?

A. Yes, sir, be 132 feet deep, could not be 132 feet trackage, but 132 feet deep.

Q. So wouldn't they be worth by the same method \$14,000?

A. You have no more trackage.

Q. Depth don't count then in your estimation?

A. Surely, you have got 132 feet in depth there.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

2232

Tuesday Forenoon Session.

AUGUST 15, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

A. S. WILCOXEN, re-called for further cross examination, examined by W. L. Read, Esq., testified:

Q. I think, Mr. Wilcoxen, we were considering lots in Block C, weren't we?

A. I think it was M, Mr. Read, I don't remember.

Q. Lots 3 and 4 in Block K, you may direct your attention to that now. You had placed a valuation of \$10,000 upon the two lots and as I recall it, yesterday evening you placed a valuation of \$7,000 on Lot 4 and \$3,000 on Lot 3, is that right?

A. What block is that?

Q. Block K?

A. \$10,000, yes sir.

Q. And you said, I think, didn't you, \$7,000 on Lot 4 and \$3,000 on Lot 3?

A. About in that proportion, yes sir.

Q. That was on the theory that Lot 4 was the trackage lot?

A. Yes, sir.

Q. And that Lot 3 was not a trackage lot?

A. Yes, sir.

Q. The idea being, I take it, from what you have already said, that since the Hyland lot over on the corner of Market and Third which was listed with you and regarded worth \$7,000, that you regarded Lot 4 in Block K as practically the same kind of a lot and the same value?

A. Practically so; the trackage is the valuable part of it.

2233 Q. At any rate, you compared Lot 4 in Block K with the Hyland lot?

A. Yes, sir.

Q. Since the Hyland lot had been listed with you at \$7,000 therefore you said Lot 4 in Block K was worth \$7,000, that is the idea?

A. Yes, sir.

Q. And then looking at Lot 3, you concluded that wasn't a track-age lot?

A. No, sir.

Q. And hence, would be worth less money?

A. Yes, sir.

Q. And something less than one half only of Lot 4?

A. Something like that, yes sir.

Q. And you regarded the trackage making that difference in the value, did you?

A. Yes, sir.

Q. I think I asked you yesterday why it was that you appraised the lots separately; why didn't you appraise Lots 3 and 4 together?

A. Well, I did appraise them together, Mr. Read.

Q. Will you explain how you appraised them together?

A. I took the two of them together and considered them worth \$10,000.

Q. You considered Lot 4 worth \$7,000?

A. That is the way I arrived at the conclusion; I lumped them both together.

Q. After you made a separate appraisalment?

A. Yes.

Q. My inquiry is why you did not consider them for valuation purposes together?

A. I haven't any particular reason why I didn't.

Q. There wasn't any particular reason.

A. I just simply did it that way; that is all.

2234 Q. Well, let us consider a moment—the lots were held by one owner, the two lots?

A. Yes, sir.

Q. If you had held them and had been offered and been desirous of selling them it would have occurred to you, you could just as well as not divide the lots the other way and make two lots facing the railway track and why didn't you do that?

A. You would arrive at the same result.

Q. Will you explain how you would arrive at the same results?

A. I shouldn't have taken the two together and divided them up and asked the same price for both of them.

Q. The point I am getting at is this: you had in mind the Hyland lot over at Third and Market?

A. Yes, sir.

Q. Being \$7,000 in value?

A. Understand Mr. Read—

Q. That was a lot 66 feet wide by 132 feet deep lying sidewise with the railroad?

A. Yes, sir.

Q. Now you could have made out of Lots 3 and 4 two lots each 66 feet wide?

A. Yes, sir.

Q. With a frontage of 66 feet on the railroad?

A. Yes, sir.

Q. Why didn't you do it for the purpose of the appraisal?

A. Wouldn't it amount to the same thing?

Q. I don't know.

A. Well, if you had taken the property in Block K, \$10,000, and divided those lots up and made two lots with the 66 foot front, you have got two lots——

2235 Q. That is begging the question. Our object of the inquiry is to find out what they are worth?

A. I don't think they are worth any more cutting them up the other way.

Q. You would have had two trackage lots?

A. Yes, 66 feet in place of 132.

Q. 66 feet of frontage is sufficient to accommodate and serve the lot?

A. I suppose it is; not as much as 132 feet would be.

Q. It would have served the lot for all practical purposes and made it a trackage lot?

A. Possibly.

Q. You concede that trackage lots are worth more than nontrackage lots?

A. Certainly.

Q. You had an opportunity by that subdivision to do it, now why didn't you do it?

A. I don't understand your question.

Q. You said trackage lots were more valuable than nontrackage lots?

A. Yes, sir.

Q. You further conceded a trackage of 66 feet insufficient to serve a lot?

A. In one way; in another way it isn't.

Q. You have conceded that much; now I ask you why then, since the lots are worth more as trackage lots, why for the purpose of appraisalment you didn't make two trackage lots instead of one?

A. I failed to see where you would derive any benefit from that.

Q. Will you answer my question why you didn't do it?

A. I don't know why I didn't do it.

Q. If a trackage lot in that locality is worth \$7,000 and you had two trackage lots, you would have had a value of \$14,000?

2236 A. No, sir; I was taking 132 feet of trackage.

Q. You insist upon the fact that you have 132 feet of trackage?

A. Yes, sir.

Q. That makes the distinction in your mind?

A. Yes, sir.

Q. You make that distinction notwithstanding you admit 66 feet of trackage is sufficient to serve a lot?

A. No, I don't think it is in all cases.

Q. Well, in this case?

A. It might be.

Q. Since it might be, why didn't you treat them that way?

Mr. BYERS: I submit that has been answered two or three times.

A. I don't know why I didn't.

Q. All right then. Now go to Lots 7 and 8 in Block C; you have placed a value of \$22,000 on Lots 4, 5, 6, 7 and 8; that is right, isn't it?

A. In C?

Q. Yes.

A. Yes, sir, 4, 5, 6, 7 and 8 in C.

Q. How did you reach that aggregate, did you value the lots separately?

A. I took that on the basis of being 132 feet deep.

Q. Did you consider the lots separate and then take the aggregate?

A. No, I don't know that I did; I took that into consideration in determining the value, but I considered them as a whole.

Q. What value did you place upon Lot 7?

A. I placed two of them together in there.

Q. What value did you place upon Lot 7?

2237 A. Well, I could figure them in their entirety.

Q. Well, what did you do?

A. Well, I took it, I took the depth in there, 132 foot deep—132 feet trackage.

Q. What value did you now place upon Lot 7?

A. About \$7,000.

Q. Well, now, what value did you place upon Lot 8?

A. About \$3,300.00.

Q. You place that now, do you?

A. Practically so.

Q. What value do you now place on Lot 10?

A. In C?

Q. In C. I am asking for your present judgment; you do not need to consult this memorandum.

A. That is all right. I made this memorandum after I went over there.

Q. If you placed a valuation at the time of your inspection, I want that?

A. That is what I placed the valuation on the two lots.

Q. Not on Lot 10 separately? .

A. No, sir.

Q. Then let the memorandum go; I am asking your present judgment of the value of Lot 10.

A. About \$7,000.

Q. Did you make a separate valuation of Lot 9 at the time of your inspection?

A. No, sir; I don't believe I did.

Q. What value do you now place upon it?

A. \$3,500 or \$3,000.

Q. Which is it?

A. Well about \$3,000.

2238

Q. Now that makes a total valuation of what?

A. I don't know.

Q. Will you add it up—I have added it up.

A. \$20,500.

Q. That doesn't correspond with your—I beg your pardon, now I will go a little further with that; now what value did you place upon Lot 4 in Block C?

A. I considered the quarter block, Mr. Read.

Q. I am asking you now for your present estimate of the value of Lot 4?

A. About \$2,000.

Q. What is your present estimate of the value of Lot 5?

A. About \$2,500.

Q. What is your present estimate of the value of Lot 3?

A. About \$5,000.

Q. Now, turn your attention to Lot 1 in Block C and state what your present valuation is of that, unless you made some separate valuation at the time of the inspection.

A. I did not.

Q. Well, what is your present valuation of Lot 1?

A. About \$3,000.

Q. What is your present valuation of Lot 2?

A. \$2,500.

Q. What is your present valuation of Lot 3?

A. About \$2,000.

Q. Mr. Wilcoxon, the figures you have given of the separate valuation of all the lots in Block C aggregate \$37,500?

A. Yes.

Q. While the valuation of the lots in Block C as testified about by you on direct examination aggregated \$39,000?

2239 A. In Block C?

Q. Yes; how do you reconcile that?

Mr. BYERS: You had better check up your figures.

Mr. BRENNAN: What are your figures?

Mr. READ: \$37,500 is the present valuation and the other valuation is \$39,000.

A. A difference of \$1,500.

Q. How do explain that discrepancy?

A. I took them as a whole, Mr. Read, and divided them up.

Q. You had a memoranda of your former valuations before you?

A. Yes, sir.

Q. Did you consider that?

A. I didn't make any division.

Q. You was looking at that as you testified?

A. That is true.

Q. Did you make a calculation as to where you were going to come out?

A. No, sir.

Q. Which valuation will you take then as your judgment?

A. I should take the first valuation \$39,000.

Q. Now turn your attention to Lot 7 in Block C, you have placed upon it a valuation of \$7,000.

A. Yes, sir.

Q. You did that upon the basis of a comparison with the lot on the corner of Market and Third Street?

A. Yes, sir.

Q. And upon Lot 8 Block C you now place a valuation of \$3,500, and that is upon the assumption that Lot 8 is not a trackage lot?

A. Yes, sir.

Q. You admit, of course, that it was capable of division north and south?

2240 A. Yes, sir.

Q. But you didn't do that and you don't know why you didn't do it; that is the explanation you gave with respect to Lots 3 and 4 in Block K, does that apply here?

A. Yes, sir.

Q. On Lot 10 in Block C you now give a valuation of \$7,000; that was also upon the basis of a comparison with the Hyland lot?

A. Yes, sir.

Q. Lot 9 in Block C you now give a valuation of \$3,000; that also was upon the assumption that Lot 9 was not a trackage lot?

A. Yes, sir.

Q. You admit also that these two lots 9 and 10, in Block C, were capable of division north and south so as to make two trackage lots?

A. Yes, sir.

Q. You didn't do it and you don't know why you didn't do it?

A. No.

Q. Now going to Lot 6 in Block C, you now place a valuation upon it of \$5,000; that is right, isn't it?

A. I believe so.

Q. Now, you will notice that lot is but 44 feet wide?

A. Yes, sir.

Q. Your Hyland lot on the corner of Market and Third was 66 feet wide?

A. Yes, sir.

Q. You have made a valuation of \$5,000 by comparison of the width of the lot with the width of the Hyland lot?

A. Yes, sir.

Q. You don't consider the lot per front foot worth any more than the Hyland lot?

A. It has the same frontage.

Q. Will you answer my question?

2241 A. No, I don't know that I do.

Q. That lot is but one block south of Court Avenue?

A. Yes, sir.

Q. The property on Court Avenue and First you consider what value per front foot?

A. \$200.

Q. What valuation per front foot do you place upon Lot 4—what does that amount to—Lot 6 in Block C?

A. Well, if you take the front feet on First Street there it would be \$5,000; 44 feet—it would be a little over \$100 a front foot.

Q. Your valuation per front foot on the Hyland lot is how much?

About the same price, isn't it, approximately considered, as the frontage on Third Street, 66 feet, \$100 a foot; so that your judgment is the frontage of Lot 6 on First Street is of no more value than the frontage of the Hyland lot on East Third Street?

A. I consider the trackage value.

Q. You considered their frontage is the same practically?

A. Practically so.

Q. Now the trackage is practically the same?

A. Just the same.

Q. You did not consider that the location of the lots makes any difference; that is to say, your opinion as to its value depends upon the trackage wholly?

A. To a large extent.

Q. Wholly evidently so here?

A. No, I think property that has not got trackage has got some value, Mr. Read.

Q. Well, a comparative value rests upon the fact of the identity of the trackage?

A. Yes, sir.

2242 Q. Lot 5 in Block C you value at \$2,500; what is the theory of that?

A. It has not trackage.

Q. It is regarded as non-trackage property?

A. Yes, sir.

Q. And hence, the very inconsiderable value you place upon it?

A. Yes, sir.

Q. Lot 4 in Block C you value at \$2,000?

A. Yes, sir.

Q. What is the theory of that valuation?

A. No trackage and further away.

Q. Further away from what?

A. From the trackage.

Q. Of course, you must concede that Lots 4 and 5 and 6 are capable of division north and south so as to make two trackage properties fronting on Vine Street?

A. Yes, sir.

Q. You didn't do that?

A. No, sir.

Q. You don't know why you didn't do it?

A. No.

Q. Lot 1 in Block C you valued at \$3,000; what is the theory of that?

A. It has trackage.

Q. What is the width of the lot?

A. 44 feet.

Q. You placed a \$3,000 valuation upon that lot?

A. Yes, sir.

Q. By comparison with the Hyland lot, considering that it was narrower.

A. Yes, sir.

Q. But the Hyland lot is the basis of comparison?

2243 A. Yes, sir.

Q. Lot 2 in Block C you valued at \$2,500 and that I suppose is upon the theory that it is non-trackage property?

A. Yes, sir.

Q. Lot 3 you value at \$2,000 and that also upon the theory that it was non-trackage property?

A. Yes, sir.

Q. You concede of course that these three lots might have been divided north and south and made about 66 feet trackage lots fronting on Market Street?

A. Yes, sir.

Q. You didn't do that?

A. No.

Q. You don't know why you didn't do it?

A. No.

Q. You will notice Lot 6 in Block C and Lot 1 in Block C are of the same width?

A. Yes, sir.

Q. And they are each trackage property according to your conception of what constitutes trackage property?

A. Yes, sir.

Q. Lot 6 you valued at \$5,000 and Lot 1 at \$3,000; why the difference in figures?

A. I think trackage on the Rock Island is worth more than on the K. D.

Q. Worth \$2,000 more to this lot?

A. Yes, sir.

Q. Why?

A. Because I think it is a better road to be on.

Q. That is the reason for the difference?

A. Yes, sir.

2244 Q. It is not because it is farther away from Court Avenue?

A. No, sir.

Q. That you do not regard as an important circumstance?

A. It has its bearings.

Q. What bearings does it have?

A. In a general way.

Q. In a general way, how, what; can you tell?

A. No, I don't know as I can.

Q. Are you aware of the fact that the K. D. the Keokuk & Des Moines is the Rock Island?

A. No, sir.

Q. The Hyland lot is on the K. D.?

A. Yes, sir.

Q. Well, you are not aware that the K. D. is operated by and has been for a great many years, by the Rock Island?

A. It is leased by them, I believe.

Q. And is operated by them?

A. I presume so.

Q. So far as the operation service is concerned it is the same as the other?

A. I presume so.

Q. Do you want here the distinction you made with respect to the difference of being on the main line?

A. Yes, sir.

Q. Makes two thousand dollars?

A. Yes, sir.

Q. Now, according to that, why don't you add \$2,000 each to Lots 7 and 6 in Block C, because they are on the main line of the Rock Island, while your Hyland lot is on the K. D.; don't you think you could afford that on your theory?

2245 A. No, I don't think so.

Q. Why do you take it off then from Lot 1 because it is on the K. D. and in that connection why don't you take it off Lot 10 in Block C because that is on the K. D.

A. Lot 10 is a wider lot than Lot 1.

Q. Yes, that is true, but it is no wider than Lot 7 in Block C.

A. No.

Q. I just want you to make what answer you care to in respect to that situation; explain yourself, if you can, or want to; if not, we will leave it as you have it.

A. Well, I don't know as I have got any explanation to make on that.

Q. Let me ask you, did you at the time of your inspection and valuation place separate valuations upon the various lots in Block B?

A. No, I don't think I did, Mr. Read.

Q. What valuation do you now place on Lot 7 in Block B, the northeast corner lot.

A. \$7,000.

Q. That is upon the theory of a comparison with the Hyland lot?

A. Yes, sir.

Q. What valuation do you place upon Lot 8 in Block B?

A. About \$3,500.

Q. That is upon the theory of a comparison with the Hyland lot?

A. Yes, sir.

Q. But regarding Lot 8 as a non-trackage lot.

A. Yes, sir.

Q. You concede the two lots might have been divided north and south making two 66 foot lots fronting on Market Street?

A. Yes, sir.

2246 Q. You don't know why you didn't make that division?

A. No.

Q. What valuation do you now place upon Lot 10 in Block B?

A. About \$7,000.

Q. That is upon the theory of a comparison with the Hyland lot?

A. Yes, sir.

Q. Regarding it as a trackage lot?

A. Yes, sir.

Q. What value do you now place upon lot 9?

A. \$3,000.

Q. That is upon the theory of a nontrackage lot and by comparison with the Hyland lot?

A. Yes, sir.

Q. That is to say, you regard Lot 9 as of \$4,000 less value than the Hyland lot by reason of the fact that it is a nonrackage lot?

A. Yes, sir.

Q. These two lots might also have been divided north and south making two trackage lots?

A. Yes, sir.

Q. You didn't consider that at all and don't know why you didn't?

A. No.

Q. What valuation do you now place upon Lot 6, Block B—I want your present individual judgment without regard to any previous value placed upon it?

A. About \$4,000.

Q. That is also upon the theory of a comparison with the Hyland lot?

A. Yes, sir.

Q. But regarding lot 6 as only 44 feet in width and giving it substantially the same valuation per front foot?

2247 A. Yes, sir.

Q. What valuation do you now place upon Lot 5?

A. \$2500.

Q. That is upon the theory that it is nonrackage and by comparison with the Hyland lot as a basis of valuation?

A. Yes.

Q. What value do you place upon Lot 4?

A. \$2,000.

Q. That upon the theory that it is a nonrackage lot and by comparison with the Hyland lot?

A. Yes, sir.

Q. What valuation do you now place on Lot 3 of Block B?

A. About \$2,000.

Q. That also upon the theory that it is a nonrackage lot and by comparison with the Hyland lot valuation?

A. Yes, sir.

Q. These four lots might be divided north and south?

A. Yes, sir.

Q. Making two 66 foot lots fronting on Market Street trackage property and of a very much greater depth than the Hyland lot?

A. Yes, sir.

Q. You did not consider that in your consideration of the matter and don't know why, is that right?

A. No, I guess not.

Q. Turning your attention now to Block M did you place separate valuations upon Lots 9 and 10 in that Block?

A. I did not.

Q. What valuation do you now place upon Lot 9 in Block M?

A. \$4,000.

Q. I noticed you looking at the memorandum?

2248 Mr. BRENNAN: He has a right to look at the memorandum.

A. No, sir; I was looking at the lot here on the north.

Q. That is upon the theory that it is a trackage lot?

A. Yes, sir.

Q. That is \$3,000 less than the Hyland lot?

A. Yes, sir.

Q. Why—before answering that question I will ask you another one; what valuation do you now place upon Lot 10 in Block M?

A. About \$3,000.

Q. You recollect that your aggregate valuation on these two lots was \$7,000 given yesterday, do you?

A. Yes, sir.

Q. The valuation of \$1,000 on Lot 10, Block M, is upon the theory that it is nontrackage lot?

A. Yes.

Q. Your valuation of Lot 10 in Block M, of \$3,000 is upon the theory that it is a nontrackage lot?

A. Yes, sir.

Q. These two lots also might be divided north and south making two 66 foot lots fronting on Elm Street?

A. Yes, Sir.

Q. You notice the valuation of those two lots is the same as the Hyland lot?

A. I haven't added it up.

Q. You have testified that the Hyland lot was \$7,000?

A. Yes, sir.

Q. You know the aggregate of \$3,000 and \$4,000 is \$7,000?

A. Yes, sir.

Q. So that it is the same?

A. It is the same.

2249 Q. Why didn't you consider Lot 9 in Block M as of equal value with the Hyland lot: it is the same size, has trackage for the same distance and trackage on the same railroad; why that distinction—it is a mistake, it is on the Q.; Lot 9 is on the Q. while the Hyland lot is on the K. D.

A. I presume that is the reason then.

Q. Is it?

A. Yes.

Q. That is to say, two lots on the Q. are only worth what one lot is worth on the K. D., and the difference is because one is the K. D. and the other is the Q. Railroad?

A. Yes, that is my difference, yes sir.

Q. Well, that is your view of it now?

A. Yes, sir.

Q. Another situation I call your attention to for the sake of receiving such explanation as you care to make, the Hyland lot is 66 foot lot on the K. D.?

A. Yes.

Q. Lot 10 in Block B is a 66 foot lot on the Q. railroad; you have placed the same value on Lot 10 as the assumed value of the Hyland lot; now if there is the distinction in value because a lot is on the Q. rather than upon the K. D., why don't you make it in that instance?

A. I don't know.

Q. Don't there seem to be something wrong in the working theory?

A. Mr. Read, I did not consider the Hyland lot worth \$7,000.

Q. That may be true, but you used it for comparative purposes and for comparative purposes it is immaterial whether it is worth that or not.

A. Yes, sir.

2250 Q. Isn't there something wrong with your hypothesis and don't you want to recede from it and make some explanation?

A. No, sir.

Q. Very good. Now turning your attention to Block T, did you place separate valuations upon the various lots in that block at the time of your inspection of the property?

A. No, sir, I did not.

Q. What valuation do you now place upon Lot 7 in Block T?

A. About \$700.

Q. What on Lot 6?

A. About \$600.

Q. What on Lot 5?

A. About the same.

Q. What on Lot 4?

A. About \$500.

Q. What on Lot 3?

A. About \$400.

Q. Lot 7 is regarded by you as trackage property?

A. No, sir.

Q. It is not?

A. No, sir;

Q. None of the lots in Block T are regarded as trackage property?

A. No, sir.

Q. Lot 7 abuts upon the main line of the Rock Island Railway, doesn't it?

A. No, sir.

Q. Why not?

A. Because it is right at the end of the bridge and you can't get in there with a track.

Q. Well you regarded it as nontrackage property, all of it?

2251 A. Yes, sir; all of it.

Q. The lots are 40 feet frontage?

A. Yes, sir.

Q. The basis of comparison is still the Hyland lot?

A. Not in that case, no sir.

Q. What is the basis of comparison there?

A. What in my opinion the property is worth for factory purposes.

Q. Regarded as nontrackage property?

A. Yes, sir.

Q. And regarded as separate property?

A. Yes, sir.

Q. Not regarded in connection with the ownership of Block C or any part of Block C?

A. No, sir.

Q. Now, I believe you said yesterday that you had inspected and valued this property in groups as given by you?

A. Yes, sir.

Q. That is to say, Lots 9 and 10 in Block M in one group?

A. Yes, sir.

Q. Lots 3, 4, 5, 6, 7, 8 in Block B as in another group.

A. Yes, sir.

Q. And so on as given by you in your testimony?

A. Yes, sir.

Q. Why did you do that?

A. I don't know why I did it, but I did it that way.

Q. As I recall it some of the witnesses said they were directed or requested to make the valuations as they gave them; did you have any direction?

A. Yes, sir; that is just the way they gave them to me.

Q. Who gave them to you?

2252 A. I don't remember now who it was, whether it was the City Engineer or who it was.

Q. I would like to have your best recollection as to who gave you that direction?

A. I couldn't tell you, Mr. Read.

Q. Who did you talk to about it as to acting as an appraiser of this property?

A. I think Mr. Brennan suggested it to me first.

Q. About when was it that he first suggested it to you?

A. Oh, some two or three weeks ago; maybe longer.

Q. I wish you would think about that a moment, so as to fix the time as definitely as you can?

A. Well, I couldn't Mr. Read; some two or three weeks.

Q. The trial of this case began on the 12th day of July this year; you know that?

A. No, sir.

Q. You were in the court room along about that time, weren't you in this court room?

A. I dropped in several times, Mr. Read, I guess so.

Q. Weren't you in here in the early days of the trial?

A. I expect likely I was.

Q. Had Mr. Brennan spoken to you before that?

A. Yes, sir.

Q. How long before that?

A. I don't know a week or ten days probably.

Q. Do you recall anything about that?

A. That is the best of my recollection.

Q. Mr. Brennan was the first person who spoke to you about it?

A. I can't say; it is my impression Mr. Read.

Q. Well, who else did speak to you about it if anybody?

2253 A. I am not sure but what the city engineer spoke to me about it.

Q. Who is the city engineer?

A. Mr. Dobson.

Q. What did Dobson say to you?

A. I don't remember what was said, but they asked if I would appraise that property and I said I would.

Q. What did Mr. Brennan say?

A. He asked me to appraise the property.

Q. Did he speak to you before Dobson did?

A. I couldn't say.

Q. Were you asked to take charge of the appraisement?

A. No, sir.

Q. Did you speak to anybody else about the appraisement?

A. No, sir.

Q. Did you speak to Frank Mathis?

A. No, sir.

Q. To B. S. Walker?

A. No, sir.

Q. To Mr. Arnold?

A. No, sir.

Q. You were not in charge of the appraisement then?

A. I don't know of anybody that was particularly.

Q. Were you in charge?

A. No, sir.

Q. Weren't you in charge?

A. Not that I know of, no sir.

Q. Didn't you take upon yourself the duty and responsibility of seeing to it that the appraisers were obtained and were assembled and performed their duty?

A. No, sir; I did not. I did not know who the appraisers were until the morning we went over there. Mr. Hauge I never met in my life that I know of.

Q. Then as the matter stands you were first spoken to by the city engineer or Mr. Brennan a week or ten days before the 12th of July?

A. Sometime about that; I can't remember exactly how many days.

Q. You said you had the Hyland lot listed with you?

A. Yes, sir.

Q. When was it listed with you first?

A. I think about three months ago.

Q. Listed by whom?

A. Mr. Hyland.

Q. What is his name?

A. I think it is Frank; he is with the Merchants Transfer Company.

Q. Are you willing to say you were not spoken to by some one on behalf of the City earlier than the time you have given about the appraisal of the property?

A. I couldn't say; I don't think so.

Q. Last March, say or April?

Objected to on part of defendants as irrelevant and immaterial.

A. Not that I remember of.

Q. Did Mr. Hyland come to your office to list the property?

Objected to on part of defendants as being immaterial.

A. No, sir.

Q. Did you go to see him?

A. I was up there talking about other business and he gave me that lot there.

Q. You didn't go to see about this lot?

A. No.

2255 Q. You was at his office on other business?

A. Yes, sir.

Q. And he gave you this lot?

A. Yes, sir.

Q. And fixed the price at \$7,000?

A. Yes, sir.

Q. You put it on your books?

A. Yes, sir.

Q. Did you make an entry in writing?

A. No, sir.

Q. Just carried it in your head?

A. I took a written memoranda on it.

Q. Have you got that memorandum now?

A. I have not.

Q. Is it in your office?

A. No, sir.

Q. Do you know where it is?

A. I don't know where it is; it may be up at the house.

Q. Now, returning to the question of the property, you appraised it in groups?

A. Yes, sir.

Q. A piece of property that is adapted to some particular use as a whole is of greater value and worth more than when cut up into pieces, isn't it, as a general rule at least?

A. Sometimes that is true and sometimes it is not.

Q. A piece of land adapted for stock growing, because of having a stream of water running through it or running through one forty of it, taken as a whole, adapted for stock raising and stock growing purposes, would be worth more considered as a whole than if it

were divided up and the stream of water segregated and cut
2256 off into one fractional part?

A. Most assuredly.

Q. And a piece of property that as a whole is served by railway trackage is worth more if taken as a whole than if the trackage is segregated by setting off and attaching it to separate fractional parts?

A. Well, I think that depends.

Q. You wouldn't admit that proposition?

A. If a man wanted to use all of it, that would be true.

Q. The general proposition is true, Mr. Wilcoxon, isn't it?

A. What do you mean, Mr. Read, as regards to a block?

Q. I mean just as I stated it in the question, that property as a whole considered as trackage property is worth more than if the trackage be segregated and cut off and attached to a fractional part of it and the remainder of the property rendered non trackage.

A. Yes sir.

Q. Now this property over here of the Gas Company is used by the Gas Company as a whole, isn't it?

A. I presume so, yes sir.

Q. You know so?

A. Yes,—well on Block T I don't think they are using all of that.

Q. You don't know what that is used for in the property of the gas plant?

A. I see they have got a pump or something in there.

Q. That is all you know there?

A. Yes.

Q. You know that because you saw the pump?

A. Yes, sir.

Q. But you don't know what appliances may be in there
2257 in the economy of the gas plant?

A. No.

Q. So now, if you can tolerate the idea that Lot 10 is used in connection with the other property, then the whole of it is used in connection with the management and conduct and operation of the gas plant?

A. Yes, sir.

Q. And the property as a whole for that use is worth more, isn't it, than if you cut it up into smaller fractions, especially than if you segregate the trackage off the property?

A. For their use, yes sir.

Q. You admit the proposition that property is worth what it is worth for its highest available use?

A. I expect that is correct.

Q. That sounds like a good proposition?

A. Yes.

Q. You have not, of course, apparently undertaken to value the property of the gas plant for what it is worth for its highest available use, assuming that the purpose for which it is now used is its highest available use?

A. No.

Q. You apparently at least have undertaken to value it upon the theory, upon the basis, of cutting it up into small fractions and of rendering a part of it nontrackage property, haven't you?

A. Yes, sir.

Q. It is worth more as trackage property than it would be without it?

A. Yes, sir.

Q. And when you say that in your opinion the aggregate value which you have given is the true, reasonable present market value,
you mean necessarily the market value in your opinion as
2258 cut up and segregated as you done it?

A. Yes, sir.

Q. You don't mean its present market value for such use as it is now devoted to and you don't mean that that tract of ground if it were occupied and used as other ground over in that vicinity is used, such as the property of the Des Moines Manufacturing and Supply Company, the American Linseed Oil Company, the Nicholas Sheddherd Co., could be obtained at the prices you fixed?

A. I think they could be obtained at the prices I have given you.

Q. But if the property of the Gas Company were devoted to such use as the other properties I have called your attention to, do you think they could then be obtained for the price you have given?

A. Not in that locality, no.

Q. You don't think so?

A. Not in that locality.

Excused.

F. A. MATHIS, being first duly sworn on part of defendants, examined in chief by R. O. Brennan, Esq., testified:

Q. Where do you reside?

A. In Des Moines.

Q. How long have you lived in Des Moines?

A. Since 1882.

2259 Q. And what has been your business?

A. Since about 1884 I have been in the real estate business most of the time in East Des Moines.

Q. What is the name of your firm?

A. Mathis Realty Company.

Q. Have you devoted yourself exclusively to the real estate business?

A. Yes, sir.

Q. Are you familiar with real estate values in the city of Des Moines in a general way?

A. Yes, sir; in East Des Moines especially.

Q. Do you know the property of the Des Moines Gas Company?

A. Yes, sir.

Q. Did you investigate that property at any time for the purpose of placing a valuation upon it, Mr. Mathis?

A. Yes, sir.

Q. And at whose instance and request?

A. At the instance of yourself and the Mayor.

Q. Did anyone else at any time request you to?

A. Yes, sir.

Q. Who was that?

A. Mr. Keffer of the Gas Company.

Q. W. D. Keffer, of the Des Moines Gas Company?

A. Yes, sir.

Q. He asked you at one time to place a valuation on it?

A. Yes, sir.

Q. When was that, Mr. Mathis?

A. It was probably in late winter or early spring, I have forgotten; some seven or eight months ago.

Q. You are familiar with the property of the gas Company, are you Mr. Mathis?

2260 A. Yes, sir.

Q. And know the property in that vicinity as well?

A. Yes.

Q. And kept touch with the sales over in that part of the city?

A. Tried to, yes sir.

Q. Directing your attention to the plat before you, Exhibit 5, blue print showing the location of the Gas Company's property, I wish Mr. Mathis you would refer to Lots 9 and 10 in Block M shown on the plat and tell the Master what in your judgment was the reasonable market value of those lots say on or about January 1st, 1911?

A. I put a value on that of \$65 a front foot fronting to the railroad.

Q. What would be the aggregate valuation of the two lots?

A. \$8,580.

Q. Is that Block M or Block B?

A. I think I placed the value in Block M at \$60.

Q. I want to get Block M first, what was the frontage?

A. 132 feet square.

Q. At \$60 a front foot it would be \$7,920?

A. Yes, sir.

Q. Is that what you would say, Mr. Mathis, would be the reasonable market value of the two lots?

A. Yes, sir.

Q. Now take Lots 9 and 10 in Block B, shown on Exhibit 5, and tell the Master what the reasonable market value of those lots was on January 1, 1911?

A. I put those at \$65. a front foot.

Q. \$65. a front foot?

A. Yes, that would be \$8,580.

2261 Q. Now, referring to Lots 3, 4, 5, 6, 7, and 8 in Block B, please tell the Master what in your judgment was the reasonable market value of these lots at the time referred to?

A. I put those and 7 and 8 together and appraised them on the basis of \$75 fronting to the north.

Q. What is the aggregate?

A. \$19,800.

Q. Referring to Lots 1, 2, 3, 9 and 10 in Block C, Mr. Mathis, will you please state what in your judgment was the reasonable market value of those lots at the time referred to?

A. I put that at \$80 a front foot.

Q. What is the aggregate amount?

A. \$21,120.

Q. What are the dimensions?

A. 264 feet. They are marked on this plat 140 feet; I have figured it on the basis of 132 feet; that would be 280 feet. That would also be true with these others. I had taken the city plat. This plat shows 140 and the city plat shows 132.

The MASTER: Which ones are those?

A. Both blocks B and C; that is on account of the alley.

Q. You took the city plat which showed the alley?

A. Yes, on a basis of 132 feet deep.

Q. On the basis of 264 feet, I just wanted to know if you had not made a mistake in your multiplication?

A. I make it \$21,120.

Q. Now taking lots 4, 5, 6, 7, and 8 in Block C?

A. I put those at \$100 a front foot on the Rock Island.

Q. What is the aggregate?

A. That would be \$26,400.

Q. On the basis of eliminating the alley?

A. Yes, \$26,400.

2262 Q. Referring to Lots 3 and 4 in Block K, tell the Master what in your judgment is the value of those lots.

A. \$100 a front foot.

Q. What is the aggregate?

A. \$13,200.

Q. Now, referring to lots 3, 4, 5, and 7 in Block T shown upon the plat, tell the Master what the value of the lots to which your attention is called was on January 1, 1911?

A. I appraised that at \$4,000.

Q. So that if I have added your figures correctly the total value of the property is \$101,020.

A. I haven't got it totaled here.

Q. Your figures are, as I have them, \$7,920; \$8,580; \$19,800; \$21,120; \$26,400; \$13,200 and \$4,000?

A. That is \$101,020.

Q. Now, Mr. Mathis, is that your judgment of the market value of this property on or about January 1, 1911?

A. Yes, sir.

Q. I wish you would tell the Master which is the principal thoroughfare in East Des Moines, business street?

A. Walnut and Locust Streets.

Q. Are property values higher on Locust than on Walnut?

A. Yes, sir.

The MASTER: Locust Street runs to the Capitol?

A. Yes, sir.

Cross-examination by W. L. READ, Esq.:

Q. Who was present when you inspected and examined this property?

A. B. S. Walker, A. O. Hauge, Mr. Arnold and Mr. Linthicum.

2263 Q. Did Mr. Wilcoxon refer to the lot on the corner of Third and Market known as the Hyland lot?

A. He did some time during that time, I think the latter part, after we probably had looked at the property.

Q. Did he tell you that lot was listed with him at \$7,000?

A. Yes, sir.

Q. Did he tell you about another lot over on Raccoon Street?

A. No, sir.

Q. Just the one lot, the Hyland lot?

A. Yes, sir; I think he told me about a lot on Raccoon Street after that one time, but not at that time.

Q. Did he tell you about the Raccoon Street lot before you had reached your conclusion as to the appraisal?

A. No, sir.

Q. About the Hyland lot he told you the day you were down there?

A. Yes, sir.

Q. He told you that lot was listed with him at \$7,000?

A. Yes, sir.

Q. Why have you appraised this property in lots as you have given it?

A. I didn't see any other way to arrive at any conclusion as to its value.

Q. It was upon your own suggestion then?

A. Yes, sir.

Q. Mr. Mathis, it is a coincidence perhaps, but Mr. Arnold, Mr. Wilcoxon and Mr. Hauge and Mr. Walker have, as I recall it, given appraisements in this method, that is, by including the same lots in the same block; did you talk it over and agree upon it?

A. I made this appraisement for Mr. Keffer first six or eight 2264 months ago on this basis.

Q. Did you talk with Mr. Wilcoxon, Mr. Arnold and the rest of the appraisers of this method of getting at it?

A. I think I suggested—I don't know whether I suggested it or somebody else; I suggested that I had already made an appraisal I think, and I may have suggested that it was appraised that way; I don't remember.

Q. As I recall it, some of the witnesses stated that they had been requested to appraise in this method, that is in lots?

A. Not that I know of; I did not understand we were.

Q. At any rate, you and all the appraisers for the city seem to have appraised in this method and including the same lots in the same bunch?

A. Well, I don't know; I can tell you that I made this appraisement for Mr. Keffer several months before I ever talked with the other gentlemen.

Q. Mr. Mathis, if you will pardon me, I did not inquire about that; I am trying now to find out how you appraisers all adopted the method of appraisement by lots?

A. I only can explain for myself.

Q. Do you think you told the others you had appraised it in that way?

A. I think so.

Q. Did you suggest then that was the better way?

A. I may have done so; I don't remember.

Q. You don't recall?

A. No.

Q. You just stated a moment ago you could see no other way to appraise it?

A. I think we could get at its best value by appraising it on railroad frontage.

2265 Q. Were you in the court room when Mr. Wilcoxon testified?

A. Part of the time.

Q. Let me ask you, how you did appraise, for instance take Lot- 9 and 10 in Block M?

A. I appraised it on the basis of the railroad frontage.

Q. You appraised the two lots together?

A. Yes, sir.

Q. And on the basis of railroad frontage?

A. Yes, sir.

Q. What was your basis of comparison as to those values?

A. Well I commenced on the Rock Island trackage first and appraised that \$100 a front foot.

Q. What did you begin with first?

A. I appraised the Rock Island trackage first.

Q. Let us get the job lot you first appraised?

A. Lots 4, 5, 6, 7, and 8 in C.

Q. Now you appraised that upon the basis of Rock Island frontage?

A. Yes, sir.

Q. What did you first appraise?

A. 4, 5, 6, 7 and 8 in C.

Q. Did you consider Lots 4, 5, and 6 as trackage property?

A. Yes, sir.

Q. You took 132 feet frontage on the Rock Island?

A. Yes, sir.

Q. And called that \$100 a front foot?

A. I took the whole block and called it \$100.

Q. That is true of those three lots at any rate?

A. Yes, sir.

Q. What was the basis of comparison to obtain that \$100 per front foot?

A. Well, at that time there hadn't been any sales I knew of in that exact locality, that is any recent sales.

Q. The Hyland lot was listed with Mr. Wilcoxan, he told you that?

A. Not when I fixed this value.

Q. He told you that anyhow?

A. I fixed this value some months before I talked to Mr. Wilcoxan about the Hyland lot.

Q. Go ahead and tell me how you obtained the basis of comparison?

A. I simply had to take into consideration the values as to what I believed they were worth in that locality; since then there have been some sales in that locality which I think justify my—

Q. Just precisely how did you arrive at your conclusion of \$100 a front foot being the proper valuation?

A. Well, there was trackage on Court Avenue on a public street at that time—

Q. What trackage was that?

A. Between Second and Third on the south side of Court Avenue; at that time we could offer at \$200 a front foot; I considered it was worth twice as much as this on the Rock Island.

Q. Why?

A. Because of the fact it had frontage on a public street and had streets all around it.

Q. Vine Street is a public street?

A. It is a railroad track.

Q. It is a public street?

A. It belongs to the city I guess.

Q. It has not been vacated?

A. Not that I know of.

Q. Then the difference was, because of your estimate, the difference between Court Avenue and Vine street as a street?

2267 A. To a certain extent.

Q. What trackage does that property have?

A. The Des Moines Union.

Q. It is served by a track through the middle of the block?

A. Back of the frontage.

Q. What property was that?

A. The Patrick property.

Q. Did Patrick offer his property?

A. He was offering it at that time.

Q. At \$200 a front foot?

A. Yes, sir.

Q. What other factor entered into the formation of your judgment of \$100?

A. The Baylor property of First and Court Avenue was held or had been sold, I don't remember which; at that time it was held at \$28,000 and I think sold for \$27,000.

Q. About \$200 a front foot?

A. I don't remember now. A little less than \$220.

Q. The Baylor property is not trackage property?

A. No, sir; that was a corner property near the river and right by the bridge.

Q. It was not trackage property.

A. No.

Q. What other circumstance or fact did you have in mind in reaching your conclusion as to the valuation per front foot of the gas property in Block C?

A. Well the Nicholas Shepherd property on the corner of Fourth and Vine was bought by the Loetcher-Yeager Manufacturing Company for \$35,000 a quarter block with a three story building on it.

Q. That is trackage property?

A. Yes, sir; that is on the Northwestern, the Rock Island

2268 and the Des Moines Union.

Q. That was unusually cheap property, wasn't it, a low price?

A. I think it was a good buy; I think it was a little below its value.

Q. It was really below normal?

A. I think so.

Q. In your estimation?

A. Yes, sir.

Q. You are rather conservative, aren't you?

A. I hope so; I think I am.

Q. You take some pride in the fact that you are conservative?

A. I don't know that I take any pride in that fact.

Q. You recognize it as a fact that you are conservative?

A. Yes.

Q. Was there anything else now that was a factor?

A. There was a sale on the corner of Third and Vine by the American Linseed Company to the Loetcher-Yeager people of a quarter block of \$8,000.

Q. When was that sale?

A. That was this spring; it was consummated in March; it was made earlier than that.

Q. That was regarded by you as a low price?

A. I think it was a low price.

Q. It was a bargain counter sale?

A. I don't know whether—I don't think they were forced to sell it; but I think they sold it at a low price.

Q. Anything else?

A. There was a lot of the Iowa Loan & Trust Company on Fourth street between the K. D. and the Rock Island, on the east side of the street sold for \$2,500; 60 feet, not trackage.

2269 Q. That was a lot the Company had taken on foreclosure?

A. I don't know how they got it.

Q. The Iowa Loan & Trust Company is not a holder of property at all, not a buyer?

A. I think not.

Q. It simply takes what it has to on foreclosure?

A. I think so.

Q. From those circumstances you concluded the frontage in Block C was worth \$100?

A. Yes, sir.

Q. What did you do with Lot 9, the remaining lots in that block?

A. I put them out fronting on the K. D. at \$20 less.

Q. Why did you do that?

A. From the fact they are a little farther away from the crossing of the bridge, crossing of the river, and because of the fact they were on the K. D. instead of a through line.

Q. And the properties in Block D you considered all as trackage property?

A. Yes, sir.

Q. And so placed a valuation upon them making it less per front foot because of what circumstance?

A. Well, it is a little farther from the crossing of the river.

Q. What figure does that short distance cut in your estimation?

A. Well it would be a very hard thing to explain, but sometimes property in one block is worth a little more than any other if the streets are open.

Q. In your estimation in Block B, K. D. frontage, you put it at how much?

A. I put the Rock Island frontage that is the K. D. at \$80—no in Block B I put that at \$75.

2270 Q. The Q frontage, what is that?

A. That is \$65 in Block B.

Q. Why did you make that difference?

A. Because of the difference in railroads and the difference in location as compared with crossing the river bridge further from the bridge.

Q. You made \$35 difference per front foot between property in Block B fronting on the Q. and Block C fronting on the Rock Island?

A. Yes, sir.

Q. You made it because of the difference in the two railways and because of the difference in the distance from the bridge?

A. Yes, sir; and the location as to the business property in East Des Moines also.

Q. This isn't business property?

A. No, this would be manufacturing property, factory property.

Q. How much difference did you make because of the two railroads?

A. I don't think I could tell you. In the sale of property we find——

Q. Have you——

Mr. BRENNAN: Let him finish his answer.

A. In the sale of property we find that Rock Island trackage is much preferable to the Q. or K. D.

Q. Have you sold any?

A. Not recently.

Q. Have you ever?

A. I have sold some trackage, yes sir.

Q. Have you had an opportunity to know the circumstance you call attention to, and to see whether it is true or not as to whether it is on the Rock Island or Q.?

A. I don't know that we have sold any but in offering property we find that distinction.

Q. When did you find it and where; I am disposed to
2271 doubt that proposition and defend the Q. railroad.

A. I don't know that I can tell you, Mr. Read.

Q. The property in Block T, what did you regard it, for what uses did you regard that property as available?

A. I thought it might be available for small factories.

Q. Did you regard it as having trackage facilities?

A. Yes, sir.

Q. But you didn't value it according to the frontage?

A. I valued it because of the fact that it was so much deeper than it was fronting on the railroad track, taking into consideration the fact it had trackage.

Q. You didn't regard it as a part of the Gas Company property, used and essential to use in connection with the maintenance and operation of the gas plant?

A. No, I think not.

Q. You didn't regard any portion or any lot that you separately appraised as an integral portion of the gas plant?

— No, sir.

Q. Or necessary to its operation?

A. No, sir.

Q. Where it is necessary to have a certain tract of land, I mean a certain area, to serve the purpose for which it is desired, that property so necessary is worth more consequently than it is cut up and separate?

A. It might bring more if they had to have it just in that location.

Q. Well it is worth more in that location?

A. If they had to buy it in that location and pick it up in small parcels—

Q. It is worth more in that location because if the then owner were to sell, if there should come along a buyer who wanted
2272 the same tract or an equal tract of equal area, it would be worth more to him?

A. I think it would bring more money split up than in a tract.

Q. Take my proposition, that piece of ground, that whole tract, if a person should come along who wanted a tract of equal area and equal character of trackage and all, it would be worth more to him, he would pay more for it as a whole than he would if it was in separate tracts?

A. Usually in buying large tracts of that kind they want to buy it cheaper.

Q. Take this illustration: suppose one had a piece of agricultural land adapted for stock growing and watered by a running stream, now if a person wanted to buy a stock farm he would pay more for that farm as a whole than he would if it were cut up into forty acre tracts segregating into one forty all the water?

A. That individual man might.

Q. People of that class would?

A. Yes.

Q. So that applied, that illustration applied to the situation over here, here is a tract of land adapted for a use where trackage facilities were necessary, where it was necessary and desirable to be inside and not remote from the business center, and where it was desirable and advantageous to be near to the thoroughfares of the business, now such property as a whole would be worth more than if it were cut up into separate properties?

A. It usually brings more money cut up into small parcels.

Q. That might be true of business property, but that could not be true where a demand was for a large tract—I am trying to get into
2273 your mind now the idea of a demand for a large tract, a tract as large as this?

A. It is pretty hard to answer that question as you put it. Usually if they can't get one location that suits when they want a large tract, they go to a location where they can get it.

Q. This is a problem of having it in this location?

Mr. BRENNAN: I submit the witness has answered the question two or three times.

A. I am inclined to think Mr. Read, the property would bring more money split up in parcels than a large buyer would pay for it as a whole.

Q. Suppose you had the problem on hand of buying up in one tract two and a half blocks or two and three fourth- blocks in that general locality, for instance, south of Court Avenue and west of Fifth Street and north of Elm, what could you go in there, what would it cost to go in there, taking that location as it is, the uses that are made of it and gather up two and a half blocks of contiguous property?

A. I don't think it could be done.

Q. Why?

A. Because of the fact that the Gas Company and the railroad companies have got most of it.

Q. There are a good many factories in there?

A. Small factories, yes sir; quarter blocks. It is hard to get into one block where a railroad company hasn't got a part of it.

Q. Well, take block D and Block I, the Des Moines Union goes through that block, but eliminating that, what could you get those two blocks for?

A. I don't know whether they could be bought or not.

Q. I wish you would take a pencil and figure out what the cost would be?

A. I can't do it, because I don't know what the owners want for it.

2274 Q. You know what they are worth?

A. Court Avenue frontage would be worth \$200 here.

Q. Mr. Mathis, it would cost more to get those two blocks than the valuation you placed upon Blocks C and B?

A. Yes, sir.

Q. Doubly more?

A. I don't know whether doubly more but it would cost more.

Q. Now, suppose you would go on the west side of the river, south of Mulberry and east of Twelfth and Fifteenth and north of Tuttle and undertake to buy up two blocks and a half there—

A. I haven't any idea what it would cost there, I haven't handled anything there.

Q. Suppose you were to gather up two blocks and a half, using the Kraetzer Carriage Company as a nucleus, what would it cost there? Can you state what it would cost there?

A. No, sir.

Q. Well, return to the east side then, it would cost a sum considerable in excess of the valuation you placed upon the gas property to gather up under one ownership an equal area of ground in the district I have called attention to?

A. I think so.

Q. Now, Mr. Mathis I want you to get into your mind the idea of a buyer who desires two blocks or two blocks and three quarters

of ground, situated west of Fifth Street and south of the south line of Court Avenue and north of Elm Street, who requires that the property shall be trackage property, thoroughly trackage and in that general location; now suppose that you had the property of the Gas Company, what price do you imagine you would make to that buyer for the gas property, remembering and keeping in mind the conditions as they prevail in Des Moines, the inside trackage property in West Des Moines and inside trackage property in East Des Moines is high priced?

Objected to on part of defendants as incompetent and not proper cross-examination.

A. That would depend very largely on what I thought I might be able to get for it; I would get all I could for it.

Q. That is true; wouldn't you sit down and figure for yourself—this man requires this large tract of ground, it has got to be trackage property, he can't get it in the outside trackage districts, he must get it in here; he can't get it in West Des Moines and buy an equal area without paying a half a million dollars as a rule, and he cannot well go into this district because he has got to buy up from individual owners and he will be held up along the line; wouldn't you figure all these things as factors in determining what you ought to ask for it.

Defendants interpose same objection last made.

A. In selling I would try to get as much as I could; if I figured he was going to be held up by somebody else, I would try to hold him up myself.

Q. Wouldn't you figure all the elements, factors to which I have called your attention in fixing the price that you ought to ask for your two and three fourths blocks of ground?

A. I perhaps would.

Q. Wouldn't you be right in doing that, aren't they just the factors to be taken into consideration?

A. Those are taken into consideration.

The MASTER: You would sell it for all you could?

A. Men usually get all they can.

Q. Aren't those just factors to be considered by you and wouldn't you justly argue that the man you was trying to hold up would look at it in the same way, isn't that true?

A. I suppose I would insist upon getting as much as I could for the property.

Q. You recognize that supply and demand are vital elements in determining values?

A. Yes, sir.

Q. If you had the only available piece of ground several people wanted you would think you could get more for it?

A. Yes, sir.

Q. What is the range of values on East Locust Street from First to Fourth street, referring now to ground irrespective of improvements?

A. From \$175 to \$200.

Q. Do not limit yourself to what may be offered for it; I am simply asking what is a just value rather than price?

A. About \$200 a front foot.

Q. Where do you find \$200 a front foot property?

A. We sold some near Fourth Street just east of Fourth Street last year for \$3,500, 20 feet, that would be less than \$200.

Q. The Shaver property, what do you think that is worth a front foot—you had a chance to testify about that and put it down low; see how low you go again.

A. I was not a witness in the Shaver case.

Q. What is it worth?

A. That is a corner—is it 44 feet?

Q. I think so?

A. About \$250.

Q. Go one block east to the corner of Fifth and Locust; what is property worth there per front foot?

2277 A. Probably \$300 to \$400.

Q. Well, let's take the corner that Teachout has bought, the northeast corner of Fifth & Locust, what valuation would you place upon that ground; in that same connection what valuation would you place upon the southeast corner of the Smucker & Loper property, and in that same connection the Capital City Bank property?

A. I think the Teachout corner worth about \$400 a front foot.

Q. What did he pay for it?

A. \$110,000 I think.

Q. How much?

A. 100 feet.

Q. The building and all?

A. Yes.

Q. How deep?

A. 132 feet.

Q. The building is old, it isn't worth much?

A. Part of it is old and part isn't.

Q. Well take the Capital City Bank corner, how much is that ground worth?

A. About the same, about \$400 a front foot.

Q. And the Smucker & Loper frontage?

A. About the same basis.

Q. And the other corner?

A. About the same.

Q. Where is the highest priced property frontage in East Des Moines?

A. On Locust Street between Fifth and Sixth.

The MASTER: What is the next street south of Walnut?

A. Court Avenue.

Q. What is your idea for placing so low a valuation on the Teachout property?

2278 A. There is a good building there excepting just on the corner.

Q. Teachout bought it recently?

A. Yes, sir.

Q. When?

A. Something over a year ago.

Q. Paid \$100,000?

A. Yes, sir.

Q. You figure the building worth \$50,000?

A. Around there someplace; about \$60,000.

Q. He didn't pay too much for the property, did he?

A. I think not.

Q. Smucker & Loper have an asking price?

A. I don't know whether it is offered or not.

Q. Don't you know they are holding it at \$35,000?

A. No, I do not.

Q. Do you know what the bank values its property at?

A. No, sir.

Q. When you get down west of Fourth Street it is about \$150 to \$200 per front foot?

A. Yes, sir.

Q. You know that the city bought a site for the city hall?

A. Yes, sir.

Q. And paid \$78,000?

A. I don't know what the price was.

Q. About 100 feet frontage on Locust street and about the same frontage on Grand Avenue?

A. I don't know what the frontage is.

Q. That would be about \$390 a front foot, double frontage on Grand and Locust?

A. Something like that.

2279 Q. How has property sold on Locust street east of that on the corner of East First and Locust?

A. There has been nothing sold but some condemned by the city.

Q. The holding prices are from \$500 to \$600 per front foot, aren't they?

A. I don't know anything except the corner of First which has been held I think for something like \$15,000 for 60 feet.

Q. Since the city hall was located at the present site and since the new Locust street bridge has been completed and since the *the* grade of Locust street has been raised and since the park improvement commenced on the river front there have been a good advance in prices of property over there?

A. Yes, sir.

Q. How much?

A. About double.

Q. That is pretty nearly equally true of Walnut street east from the bridge to Fourth street?

A. Yes.

Q. There has been an advance on Court Avenue?

A. Yes, sir.

Q. About equally?

A. Yes, sir.

Q. The recently projected improvements in the way of a contemplated track through there has also tended to increase the prices?

A. I think perhaps so.

Q. So that for the last two or three years there has been a market and decided upward tendency in prices?

A. Yes, sir.

Q. There have not been many sales on those streets because of the people holding the prices anticipatory?

2280 A. Yes, sir.

Q. Therefore you find it difficult in finding a basis of values, don't you?

A. Well, I guess that is true, yes sir.

Q. You have not been able to adjust your mind and judgment to the advance in prices?

A. I think I have; I think they have about doubled in the last four or five years.

Q. That is to say, property worth \$150 now on Locust Street three or four years ago was worth \$75.

A. I think so.

Q. What property did you have in mind?

A. I didn't quote any property so low.

Q. At \$200?

A. Property west of Shaver's sold something like three years and a half ago for \$100 a front foot.

Q. What would it sell for now?

A. It has got buildings on it now; the ground would probably sell for \$225.

Q. There are no properties offered for sale along that street?

A. Not very much.

Q. You know where the Bolton property is?

A. Yes, sir, some of it.

Q. Are the range of values on Walnut Street about the same as Locust street?

A. Yes, sir.

Q. How do the values on Court Avenue from the river east compare with Walnut street?

A. Probably a little lower.

Q. But all with the market of an upward tendency?

A. Yes, sir.

2281 Q. The owners are expecting to have advances?

A. Yes, sir.

Q. And so far as you are able to see they will come, too?

A. I think so.

Q. Your judgment is there will be a continuous advance in prices?

Objected to as being incompetent.

A. Yes, sir.

Redirect examination by Mr. BRENNAN:

Q. Mr. Mathis, who is W. D. Keffer for whom you made the appraisement in the first instance?

A. He is connected with the Gas Company.

Q. As Secretary?

A. Yes.

Mr. READ: That is not a very proper subject of inquiry. The witness volunteered that; evidently if he did make one it was so extremely conservative that nobody would look at it.

Q. Were there any criticisms directed against it by any one or any witness testifying against it?

A. Mr. Keffer objected and said it was too low; he said he couldn't use it.

Q. Did anybody else say anything about it?

A. Connected with the Gas Company?

Q. Yes, or who testified here on their behalf.

A. I talked to Mr. Porter one time in connection with it.

Q. What did he have to say?

Objected to on part of complainants as immaterial and hearsay.

2282 A. Mr. Porter said he had been asked by the Gas Company to make an appraisal and he wanted to get my idea about its value; he was looking it up some. I told him I had already given Mr. Keffer a figure. Mr. Porter took my figures and talked about them. He said he thought I had it too high.

Recross-examination by Mr. READ:

Q. You talked with Mr. Keffer some last winter?

A. Early winter.

Q. Don't you know Mr. Keffer has been ill and away from town since January last winter?

A. I am not sure about the date; if I was I would fix it.

Q. You said the latter part of the winter?

A. Well, to a certain extent it is a guess.

Q. It was before the coming of spring, wasn't it?

A. I think so.

Q. In the winter?

A. I think it was probably along in the winter.

Q. You know as a matter of general information that Mr. Keffer has been sick and was sick and is away and has been away?

A. I don't know anything about that; I haven't seen him.

Excused.

2283 WILLIAM D. MARKS, being first duly sworn, examined in chief by R. O. Brennan, Esq., testified:

Q. Where do you reside?

A. I do business in New York City.

Q. What is your profession?

A. Consulting Engineer.

Q. What preliminary or technical training have you had Professor to qualify yourself as consulting engineer?

A. I was graduated from the Yale School of Science in 1870, and

in 1871 took an additional degree in civil engineering. Since that time I have either been in actual practice or in instructor in engineering.

Q. Did you pursue any studies abroad in connection with your profession?

A. I spent the better part of a year in special studies on bridge construction abroad.

Q. You say that you have taught engineering, tell the Master in what schools you have been instructor.

A. In 1876 I was appointed instructor of mechanical engineering in Lehigh University; after serving there for a few months I was made Professor of Dynamical Engineering in the University of Pennsylvania, serving from 1876 to 1887.

Q. Please state in general and somewhat in detail what has been the character and nature of the professional work which you have been doing during your experience as consulting engineer?

A. By degrees I have become a specialist in gas and electricity. In 1871 I was assistant division engineer for the Delaware & Lackawanna Railroad and then later became transit man on the Chicago & Northwestern Railroad; in 1872 I was appointed resident 2284 engineer and accountant for the contractors building the La Clede Gas Works in St. Louis. I was with them from the beginning of the work until completed and in operation for some little time. After that I became contractor for blast furnaces, blast engines and railway locomotives and railway machinery. That occupation lasted until 1876. In 1887 I got a leave of absence from the University to design a ten thousand horse power electric light station built in Philadelphia, and did so design it, erect it and operate it until 1896. During the most of the latter part of the operation of this station I was the president and in 1896 I resigned the presidency to again become consulting engineer.

Q. So that from 1876 to 1887, I understand you, your activities were devoted to teaching in the University of Pennsylvania?

A. Yes.

At this time an adjournment was taken until 1:30 P. M.

2285

1:30 P. M., TUESDAY, August 15, 1911.

WILLIAM D. MARKS being continued on direct examination by R. O. Brennan, Esq., testified as follows:

Q. Now Prof. Marks, I think just before we took the noon adjournment you were stating in a general way your early experiences and also the time which you devoted to teaching in the University of Pennsylvania. After the year 1896 when you resigned as president of the Electric Light Company in Philadelphia, just what was the character of the work which you took up and what did you do during the years after 1896?

A. From 1896 on I was engaged in electric railway, in electric light works, and in gas works. Dropping the question of electricity I during that period, between that and 1905, when I went to New York—I was then located in Philadelphia—I built the Durham,

North Carolina, Gas works, a town of about 22,000 inhabitants and I took up the incomplete gas and electric light works at Fostoria, Ohio, and completed the gas works. That was all the distinctively gas business that I did except an occasional report. I should have told you that during the period between 1876 and 1887, I was actively employed in nearly all of my leisure time by the president of the Brooklyn Gas Light Co., and his associates in investigating gas works in which they were interested acting not only as a technical trained engineer in gas matters but also as accountant and going over their works, examining them as an engineer and sometimes going into their books as an accountant for the purpose of advising them as to the economics of their operations and as to the possibility of their future.

2286 Q. You spoke about going to New York City in 1905. What was the nature of the work in New York City at that time?

A. I was called from Philadelphia by the corporation counsel of New York City and entered into an agreement with him to render exclusive services if necessary, that is all of my time if necessary for three years. I began about the beginning of 1906 and continuously toiled until the beginning of 1909 in the service of New York City on the various suits, or more particularly the suit of the Consolidated Gas Co., against Wilcox as it was afterwards called although Mr. Wilcox had nothing to do with it at all had no connection with it.

Q. You refer to the case of Wilcox against the Consolidated Gas Co.?

A. Yes, sir.

Q. A case in the supreme court of the United States?

A. On the appeal of Wilcox *vs* the Supreme court of the United States.

Q. What was the nature of the work which you performed for the city of New York in reference to that case?

A. That of a technical expert in *gas* matters, more particularly appraising and accounting so far as the operating expenses were concerned.

Q. About how many gas works were involved in that investigation?

A. There were six manufacturing gas works on the island of Manhattan and four sub-gas works or distributing stations all of which I was compelled to appraise. I ought to explain to you when I say that there were a number of appraisements made, but that there was no definite classified appraisement made by any person except myself. The appraisement made for the Consolidated Gas Co. was given in the form of oral evidence entirely and in a very disconnected form in response to questions. The only classified written appraisement was made by myself.

2287 Q. Did you perform any service for any other cities in the United States and if so please state what cities?

A. In the city of Buffalo I was called upon to appraise gas works there and as all information was refused had not only to make out the list, but also to look up all of the details and appraise them

throughout. There were there four gas works, two of them had been entirely abandoned, one of them was a coal gas works and the other was a water gas works which they were not allowed to use on account of the supposed -oisonous qualities of the carburetted water gas.

Q. Did you perform any services in Jersey City?

A. In Jersey City I was called upon to appraise the gas works there that belonged to the public service corporation of New Jersey, just before I came out here. I forgot to mention that I also appraised three gas works in Cleveland, Ohio. In that case it was necessary for me to make all of the drawings and a complete set of drawings and then go over the works and appraise not only the active large gas works of about a billion and a half yearly capacity, but also two gas works which had been recently abandoned on account of the inroads of natural gas. I appraised the Bronx Gas & Electric Light Company works in the northern end of the Island of Manhattan for the corporation counsel, I had forgotten that. That makes eleven there.

Q. Have you performed any services for the city of Minneapolis?

A. I was employed by the city of Minneapolis in the autumn of 1909, if I recall correctly for the purpose of advising them on technical matters connected with gas and for the purpose, as all information was refused of making an estimate of the value of the gas works under an appraisal and fixing the price of gas, the reasonable 2288 price of gas for the information of the Mayor and of the city council.

Q. They had under discussion at that time a rate ordinance?

A. They had and also a new or prolonged ordinance. The result was that they entered into this contract and the city of Minneapolis received gas at 65 cents a thousand and its citizens at 85 cents.

Q. In New York City what was the occasion of your work there, what was the controversy, was it a rate case?

A. It was a rape case.

Q. And what was the nature of the work in Cleveland, did that involve fixing of rates?

A. That involved fixing of rates in Cleveland. The contract that the city have gas at seventy-five cents and it having, the city and the citizens — both expired and the east Ohio Gas Company of which the president was Mr. Dailey, desired to establish the price of gas at 95 cents or at least finally settled on 95 cents after suggesting something higher and I was called in there and not only made the appraisalment and the drawings but also investigated their books and the result was that the company agreed to seventy-five cent gas if the output or sales was more than one billion annually and to 80 cent gas if the output or sales was less than one billion annually.

Q. Please state to the Master in a general way how extensive the gas works were which you appraised and valued in New York City in connection with the Wilcox Gas case indicating about the amount of gas sold annually?

A. The gas manufactured on the island of Manhattan amounted to about ten billion five hundred million. The gas sold on the island of Manhattan in the year 1905 amounted to about fourteen and one-

fourth billion cubic feet, the extra gas being brought there through extensions in underground conduits underneath the East river.

Q. Please state in a general way the capacity and output of the Buffalo Gas works with which you were connected in making an appraisal or valuation of the works.

A. Recalling roughly the Buffalo Gas works was selling between seven hundred and eight hundred million cubic feet annually. Their capacity, however, was about four times that amount but was not required on account of the inroads of natural gas.

Q. Were your services in the city of Buffalo in connection with an ordinance fixing rates?

A. My services there was before a gas commission which is not extinct, it was extinguished in the formation of the public service commission No. 2, the upper part of the state.

Q. What was the character of the gas works which you appraised in Cleveland?

A. They were in part coal gas and in part ca-buretted water gas.

Q. Do you recall the capacity?

A. The capacity of the water gas plant was about three million cubic feet a day and the capacity of the coal gas plant was I think about a million and a half a day.

Q. Do you recall in a general way professor, the number of miles of mains in the distribution system in Cleveland?

A. It was very close to 500 miles of mains.

Q. And what was the number of miles of mains in Buffalo in round numbers?

A. It was something over 400 miles in round numbers.

Q. And in New York City, do you recollect and the Island of Manhattan exclusive of Brooklyn?

A. It is odd, I should have forgotten it. I think, however, it was 822 miles.

Q. As I understand you in connection with your work in the various cities which you have mentioned you were called upon and did in fact prepare and submit an appraisal or valuation of the respective properties?

A. In each case.

Q. What relation if any do you sustain to the Public Utilities Commission of the state of Massachusetts?

A. I have for the past two years been called before it by the city of Worcester in the matter of rates for public street electric lighting and at intervals have gone before them and communicated the results of my investigations of some sixteen or seventeen different cities in that state.

Q. What professional employment have you had with the city of Providence Rhode Island?

A. The city of Providence, Rhode Island, has employed me to take up the matter of gas and electric light rates and also to take up the study of the physical distribution of the street and public building lighting of Providence, the idea being to bring about a modern and up to date system of lighting of all the streets of Providence. I am due there on the 15th of this month.

Q. Does that work involve an investigation of the rates and prices for gas and electric light?

A. It does for both.

Q. Do you belong to any society or association of engineers and if so what are they?

A. I belong to quite a number. Those of the larger size, American Institute for Gas Engineers, The American Institute of Electrical Engineers, American Philosophical Society, an honorary life member of the Franklin Institute for Scientific services rendered and I am a member of quite a number of smaller societies difficult to recollect.

Q. Now I will ask you Professor Marks, whether you have been employed at any time to do any work in connection with the Des Moines Gas Co.'s property in the city of Des Moines. If so, please state when you were first employed, when you came to Des Moines and what service you have performed.

A. The first I knew of the Des Moines matter was about the 1st of this year and Mr. John MacVicar employed me to take up this matter and about the 1st of February I came out here, remaining here long enough to look around the city and look at the works in a general way. I returned again later on for a week or two and at that time was granted access to the works and went over them identifying apparatus and forming a general opinion in regard to it. I returned some six or seven weeks ago and since that time have been occupied on an appraisalment mostly.

Q. Have you made a valuation of the property of the Des Moines Gas Company based upon the quantities shown in complainant's Exhibit No. 15 introduced in this case?

A. I made an appraisalment of the Des Moines Gas works property but I have the mere list of names and the lineal measurements, I have not used the quantities and I have not been given the prices used by the company. The quantities as for instance the brick work given by the company are incorrect. The prices I don't know what they are, have no information.

Q. Did you reduce this valuation to writing in some form?

A. I did.

Q. Have you a copy of it for the Master and also counsel for complainant?

A. Yes, sir.

Q. Is the paper which has been marked Defendants' exhibit No. 23, your estimate of the value of the Des Moines Gas works?

A. It is.

Q. Does this valuation and report Exhibit 23, correspond in its number of the items and in its arrangement with complainant's Exhibit 15?

A. It does. It has references to complainant's exhibit 15.

Q. You spoke about some quantities as shown in the list Exhibit 15 not being entirely correct. I wish you would state to the Master in what respect the quantities of brick referred to in Exhibit 15 are incorrect?

A. This is a case of an inventory and appraisalment, it is not a

case of a preliminary estimate. In the making out of the quantities of brick from the measurements I find that Exhibit 15 gives a cubic foot of brick as containing 21 brick or a thirteen inch wall at 22 and one half. This is what is known amongst engineers kiln count and it does well enough for a preliminary estimate because then you always have enough brick and to spare to haul away afterwards. But that is not the actual fact with regard to the inventory count and I will show you what the facts are. To explain what I mean I had a section of thirteen — wall built. It is thirteen inches this way, it is also thirteen inches in this way and it is also 11 and one half inches in height and it contains one and one eighth cubic feet, precisely one and one eighth cubic feet. There is the ordinary three eights mortar joint laid underneath, but no mortar joint on top and no mortar joints on the side so that I am losing a three eights joint on one end of this. When these are actually counted this one and one eighth cubic feet there are eighteen bricks. These 2293 eighteen bricks are what are known as the ordinary mud brick of Des Moines and are picked up and taken out of an old building just north of the gas works, a building which was torn down so that they are the veritable material out of which many of the buildings, perhaps most of them have been built here. That eighteen brick to one and one eighth cubic feet, the fact is that there is a little over sixteen ordinary Des Moines brick to each cubic foot of wall. In all the company's estimates they have taken twenty two and one half brick to a thirteen inch wall or twenty one brick to a cubic foot and that is just five bricks too many in every cubic foot for sixteen from twenty one leaves you five bricks. And sixteen into five is about 30 per cent. So that the average over estimate of the number of bricks in this estimation, and they have a very perfect list in Exhibit 15, is about 30 per cent and leaving out the gas holders which have been calculated on another unit basis there is in the neighborhood of between six and seven thousand dollars over estimate of brick computed at \$16.00 a thousand with one dollar additional for each thousand, scaffolding, or \$17.00 a thousand in round figures. That is a fundamental error.

Q. Is the matter which you have just explained referred to in your valuation?

A. In the case of almost every building I have personally picked out a certain area of walls throughout it and counted the number of bricks used taking the corner of the building so that I could see the bricks on the side and at the end the bricks and the thickness of the joints varied some so that you will find in that report that to go on the safe side I have averaged about eighteen instead of sixteen bricks for every cubic foot which has been computed.

Q. What was your principal object in preparing this report 2294 Exhibit 23 in connection with your testimony in this case?

A. In order to find first of all the real money spent, the structural cost of the building and in addition to that to find its present value which is the structural cost less the residual depreciation.

Q. I wish you would tell the Master what you mean by residual depreciation?

A. Depreciation and repairs are linked very closely together, inseparably I might say. If a concern has its repairs very thoroughly made, promptly at the time any weakness appears, the depreciation becomes less because of that care. On the other hand, neglect of repairs means large depreciation. However, a building or a machine is very much like a man, no matter how good the repair or how well it is treated and cared for there is an end to its life which cannot be avoided and there is consequently a residual depreciation going on in a building a machine or a man while any one of them may have the most thorough repairs and care and attention and it is this residual depreciation which cannot be covered by repairs which I speak of when I say that the structural cost of those buildings and of the whole plant is in the neighborhood of \$1,700,000, the residual depreciation in the neighborhood of \$300,000 and the present value in the neighborhood of \$1,400,000.

Q. In connection with your rep-r, Exhibit 23, did you endeavor to ascertain by your investigations the cost of supplying gas to the consumer's meter and if so please state what investigation and analysis of the books and records of the company you made?

A. Of course in the limited time which has been afforded I was not able personally to examine the books and had to rely upon the accountants employed by the city. These accountants verifying
2295 ing accounts giving me the resulting figures for five years back, by that I mean the cash operating costs. Taking these figures and dividing it by the sum total for five years, by the sales for five years as reported by the company, and we have to accept what the company shows in that matter I find the cash operating cost per thousand cubic feet to be 63.33 cents for gas delivered at the consumer's meter. In addition to that there is this residual depreciation of nearly \$300,000 which would have to be divided by all the gas made by the works since it started as near as we could estimate it and that was in the neighborhood of five billion cubic feet. It is recorded up to about four and a half billion cubic feet and presented in one of the exhibits here. That gave about six cents for the residual depreciation on each thousand cubic feet as a charge. There is no possible connection as a rational and practical matter between the depreciation of the works and machinery and apparatus and the amount of gas made. The depreciation is dependent upon the time elapsed and upon the value of the apparatus used and this is not largely affected by the volume of the sales or output so that this six cents is an arbitrary quantity put in simply because the company should be allowed to recoup itself to that extent for the residual depreciation which cannot be prevented. That made the cost of gas including the depreciation at the consumer's meter 69.33 cents. I think that is what you wanted.

Q. Yes, I wanted you to explain whether or not in your report you have gone into the question of the cost of gas in connection with your valuation and I think you have covered that fully by your answer. Now I want to ask you this question, in making your val-

uation of the property of the Des Moines Gas Company and
2296 compiling your report Exhibit 23, whether or not you have
made any personal inspection and investigation of the company's property and if so to what extent.

A. I examined and identified all of the more important pieces of apparatus on the land of the company and in its buildings, examining also the buildings as I went around. It is plainly impossible that I should have examined the street mains under the ground, the services or the meters in the cellars of the houses served. I found the list exhausted and complete many things being mentioned in it that ordinarily would not be taken notice of because they are practically scrap, nothing being omitted that I have been able to find.

Q. That is now you are referring to the property scheduled in Exhibit 15 are you?

A. Yes, sir.

Q. Are the descriptions of the buildings and apparatus shown in your report Exhibit 23 based upon your personal observation and investigation of the property of the Des Moines Gas Company?

A. They are with the qualifications which I have already stated to you.

Q. Now I believe in your report Exhibit 23, and I will call your attention to it later on you make an appraisement of the low carburetter water gas apparatus. In making that appraisement were you obliged to depart from the order in which it was set forth in Exhibit 15?

A. I was for the reason that the United Gas Improvement Co. is practically the sole manufacturer of the low water gas apparatus in the United States, although I do not know that it has any monopoly of it under patents. It usually when apparatus is put in gives a
2297 lump bid for all of the apparatus that is required for each
capacity of course not insisting on this but finding it the
more convenient way. I happened to have in my possession a contract signed by the United Gas Improvement Co., for three million cubic feet daily capacity plant. The contract price being given and the diameter of the generators being eight and a half feet which is not very far off from what they have right here although they have one generator somewhat larger. Using a proportionate amount for the larger generator made it very easy for me to find that the contract price which differs from the structural cost in this case would be for all of the apparatus about \$50,000.

Q. From your experience as consulting engineer and keeping in mind the work which you have done in connection with the investigation of gas works, making appraisals of the same, I will ask you to state if the list of quantities contained in Exhibit 15 indicate that the company has included all of its property which you would expect to find in a gas works of this size.

A. It has and more than is usually included in such appraisement lists.

Q. I want you to tell the Master in a general way the manner in which you arrived at the unit values of the quantities as used by you in your report, Exhibit 23?

A. Going more into detail I opened the book of details at random and I find that for building No. 10, smith, carpenter shop and store room, I measured, and this is personal measurement, a portion of the building and find from these measurements that in building No. 10 there are 16.53 bricks in each cubic foot. I in the same way measured most of the buildings in the yard. Now with regard to the matter of unit values my first care was to find out the cost of labor and material. For instance on March 14, 1911, 2298 the following scale of prices for labor was given to me from an authoritative source in Des Moines. Bricklayers 70 cents an hour. Plumbers 60 cents an hour. Carpenters 50 cents an hour. Building labor 33 cents an hour. Tinnners forty cents. Pipe layers 35 cents, electrical workers 50 cents. Cement workers 50 to 55 cents an hour. Plasterers 62 and $\frac{1}{2}$ to 70 — an hour from and after May first of this year. Painters \$3.60 to \$3.90 for an 8 hour day. Iron workers 50 cents an hour. Lathers \$5.00 to \$5.00 a day. Stationery engineer work, \$3.15 to \$4.50 a day. I also had the statement made to me by parties familiar as engineers of the cost of material and also by contractors that the cost of excavation here in this city in the streets for the purpose of laying conduits or pipes was about 40 cents a cubic yard including back filling. I recollect Mr. King, contractor for all underground telephone conduits has made that statement to me. It was also verified by others whose names I cannot recall. I also recall a statement made to me by Mr. Dobson who was formerly city engineer of this city that such excavations could be made on the land where the gas works is here if you could use a horse and scraper which is the way in which they dug out their foundations there was worth about 15 cents a cubic yard. In fact that the contractor for this bridge out here had a bid of doing the excavation of 15 cents a cubic yard — a local bid and refused it because he thought he could get it out cheaper than 15 cents a cubic yard with his own apparatus. Also the cost of digging excavations 12 or 14 feet deep to hoist the material out would be about 50 cents a cubic yard and that the cost of excavation ran all the way from 15 up to about 50 cents a cubic yard. In regard to brick work or brick they have a brick here they call mud 2299 brick, this mud brick I have shown of an old building, mud brick of standard size and I presume it is mud brick all old buildings of the gas works are made of.

Mr. GUERNSEY: We move to strike out the witness' presumption as not anything responsive and certainly nothing that is competent.

A. From that up to hard burned red stock brick at about \$8.00 delivered. It is difficult to say what this mud brick is worth but six or seven dollars was guessed at as being about what — I examined this mud brick very carefully in their old generator house using a finger nail to scratch in it and I found that the powder ran down freely so that it was very poor quality. It is something new to me and I would not have been aware of its peculiarities if my attention had not been called by a former city engineer to it. In regard to the price of lumber I got a number of figures from

various lumber people about town and found on making inquiry and the company may have been subjected to this too, that if one had enough lumber to make it worth while to inquire to a point on the Mississippi that a very great reduction would be made for car load lots way below anything that the people here would bid. So the price- that I have fixed for lumber here are very much higher than probably a shrewd contractor could get it for. I refer more particularly to the building of this bridge, Walnut street bridge is it?

Q. Yes.

A. Who made that statement.

Q. You refer to Mr. Wheeler?

A. Mr. Wheeler, yes. I don't recall any other details except that so far as I have been able I have omitted no opportunity to learn the price of iron castings for instance, you take common casing of the common kind frequently used, we will say a lamp post, made in large quantities would be a little over two cents a pound, probably you would find three cents an outside limit. It is very much so with wrought iron. The wrought iron used with corrugations for reinforcement of this bridge I may be wrong in this matter, but I think about two cents a pound, may be a little less. Of course I only sought prices from men I considered able and competent men. I am not talking about buying in small quantities.

Q. You made mention in one of your answers of the defects of some of the buildings used in the manufacturing plant of this company. I wish you would be a little more specific and tell the court what criticisms you have to offer against the buildings?

A. The new building, the generator house inside the yard, the boiler house and what they call the engine house appears to be built of good hard burnt red sand brick called here a shale brick and built with good mortar. Take the building on the northwest corner of the northern lot in which they have a lot of exhausters and other machinery it appears to be of the mud brick variety. The roof trusses are of a very common kind such as are used on stables and cheap stables. The walls have sagged and gotten so that they found it necessary to put iron tie rods through from side to side and then for fear the tie rods would pull loose in them they have put iron stays across to keep them from drawing out and hold them that way. The only value of these buildings is because of the locality and machinery in them. If they were empty buildings they would be considered valueless not worth the cost of tearing them down for the sake of the material. The roof of the building on the northeast corner is part tin and part rubberoid. It is very much out of line—I beg pardon I didn't mean rubberoid, it is part tarred felt, very much cheaper than rubberoid. It is very much out of line and while it might hold water it looks in very bad architectural shape. In examining the walls of this building on the outside you will find it very carefully painted and yet if you will look at it closely you will find they have had apertures in it

punched and filled up again so it is difficult looking at the painted wall to see just how the walls were originally built. Take the roof over the separate gas generators, the corrugated iron roof in the northwestern corner, it is as full of holes as a sieve, so that the rain would pour down in on the apparatus underneath and evidently it has for the brick floor around their generators has heaved and sagged so there is a difference of level of five or six inches in successive waves going up and down as you walk over the floor. The abandoned retorts, old abandoned retort house, some of the trusses have been taken down and there is no roof at all over it. Part of the wall has been knocked down so that they could build an addition to the boiler house. All of these I find very carefully lifted and all of the quantities put in.

Q. Were these some of the building- which were illustrated here in drawings which were produced here in evidence?

A. Yes, sir. The drawings were as carefully made as though they were for a new building to be built in the best possible manner and would serve that purpose.

Q. In making your valuation of the manufacturing plant have you considered in connection therewith the condition of the buildings to which you have called attention?

A. I considered, computed and added 12 and one half per cent overhead charges and depreciation to each building according to Summer's rule for depreciation. This Summer's rule for depreciation is the one adopted in the city of Cleveland as a whole, in part by the city of New York and I understand adopted now by the tax assessors in a good many of the cities of the United States, although I don't know specifically.

Q. That is the method of computing value of buildings?

A. Yes, present value of buildings for taxation purposes.

Q. In what manner were you able to verify the company's list of quantities with respect to its distribution system, its services and meters as also the apparatus used by the company in serving customers in Valley Junction?

A. Buried material it was of course impossible for me to do otherwise than accept the list furnished by the company. It would be quite impossible to dig it up. I have no reason to believe that there was anything omitted or that any of the measurements were incorrect.

Q. So that you have accepted the quantities given by the company in Exhibit 15.

A. I beg your pardon I have not accepted them, I have made use of them as the only available material.

Q. And you have not deducted on account of any observations or investigations on your own behalf?

A. I have made no deductions having no knowledge that would authorize me in doing so.

Q. Do you know whether or not in supplying gas to consumers in remote parts of the city especially the western portion of the city and to serve Valley Junction the company is obliged to use gas pushers or any other device for reinforcing pressure?

A. I know that the company does use what is known as gas pushers two of them, and also the special high pressure main 2303 leading out to the western portion of the city and I have been told that it is included in the street main system furnished and I have accepted them believing it to be good engineering and a wise precaution and computed the values not only on the gas mains, but also on the pushers.

Q. So as I understand you in the distribution system of the Des Moines gas company you have included therein this high pressure gas pipe running from the works to Valley Junction?

A. If it is included in the list furnished by the company I have done so.

Q. I presume I am safe then in saying that you have not deducted from the list showing distribution system anything on account of this high pressure main which serves Valley Junction?

A. I have not. And I should have added that while I saw what appeared to me to be abandoned or possibly abandoned mains or extra pipe in and around the yards, yet I did not deduct any of these either from the list furnished by the company.

Q. And I presume you are not able to say are you just what underground pipes connected with this abandoned apparatus is included in this list?

A. I cannot.

Q. Did you make any deductions on any presumptions indulged in by you with respect to abandoned apparatus?

A. None whatever.

Q. How have you treated river crossings in your report?

A. In the matter of river crossings I have carefully computed the probably engineering cost of getting these pipes across the river. I have taken the 16 foot pile shown in their drawings and knowing 2304 that a pile driven would probably cost about 50 cents a foot allowed \$8,000 for the pile driven and a couple of dollars for the yoke which attached the pipe to the pile. I also made allowance for the extra ditch and an estimate of the cofferdam work. I have no means of knowing how this cofferdam work was carried out or whether or not the pipe was laid in part by means of cofferdam or in the usual way suspended from frames and lowered into the water. I can give you the exact amount of the estimate.

Q. You are referring now to your report?

A. I am referring to Exhibit 23.

Q. Tell us where that can be found, what page?

A. Page 56. Turning over to page 57 I find that the estimate I gave for the mains laid underneath the river is \$14,277 and the mains laid in the street, the estimate is \$638,670. And on the top of page 58 the total cost of the whole main distributing system \$652,947.00.

Q. I will take these items up more in detail later on. I simply wanted you to state at this time in a general way the manner in which you treated river crossings and what method you provide for their construction and that you have set out in some detail at pages 56 and 57 of your report, Exhibit 23.

A. I have.

Q. With a note outlining the process of constructing river crossings and at page 58 a recapitulation in which these items are included in cost or present value of the distribution system.

A. I have.

Q. Have you taken pains in connection with your investigations to inform yourself with respect to the character of soil in the city of Des Moines which would be naturally encountered in constructing trenches for the purpose of laying gas mains therein?

A. I have availed myself of every opportunity to learn about the soil hereabouts from experienced and practical men asking Mr. King, the contractor, of whom I have already spoken about any difficulties that he found in the nature of rock or extremely hard excavations. I inquired also of Mr. Dobson who had been city engineer and been busy with sewer work as to whether or not any difficulties were found in the deeper excavation of sewer work. The reply in both cases was that there was no point in the city where the difficulties were at all serious due to heavy rock work or anything of that sort, that the soil at some points was alluvial formed of silt and stood up fairly well and other points it was gravelly and would stand up without bracing for any ordinary depth of four or five feet of ditch. In fact, I then examined any openings that I have been able to find here for sewers or in the streets. There is a building being built now just north of Locust street the other end of the bridge or just north of Walnut street where you can see a sheer excavation of six or eight feet. It stands fairly well not requiring any bracing to amount to anything at any point and take it for three or four feet would not require any at all. I also examined a building up on Locust street that has a cellar, or a proposed building up there where there is quite a deep excavation as compared with ditches. There again I found this gravelly stiff soil and from all I have been able to hear from men whose experience was sufficient to make their opinion worth anything the soil here is peculiarly favorable to ditch work.

Q. Did you ascertain from your investigations anything which lead you to believe as an experienced consulting engineer that there were any conditions in Des Moines extraordinary or hazardous with respect to digging trenches?

A. No, I was told and from what I saw I believe that exactly the reverse is true that conditions are more than ordinarily favorable.

Q. What have you used in your report Exhibit 23, as representing the unit cost for excavations, unit cost or price?

A. Well, in Buffalo, New York, in 1907 I had access to the official records of cost of excavation—

Mr. GUERNSEY: We object to all this as hearsay and not responsive to this question.

Mr. BRENNAN: I suppose he wants to explain. That question perhaps calls for some explanation.

Q. I want you to tell the Master the price, unit price used by you

in your report Exhibit 23, representing the cost of excavations and how you arrived at this unit value?

A. Well in Buffalo I had occasion to originate a graphical system of recording costs in a gravelly or alluvial soil. For this purpose I made a very large number of computations based on the actual records of the cost of laying pipe, water pipe in the city of Buffalo, New York. The whole of it after being tabulated was reduced to a graphical form for sizes of pipe running from two inches up to 60 inches in diameter. The basis for the excavation and back filling in this ditch which was used in this place, the ditch being dug under the ordinary difficulties occurring in the streets of any city such as interference of sewer inlets or going under street railways or going under steam railways or occasional slight difficulties from water, small quantities of rock and occasional small quantities of paving and crossings that come up in other words what might be
2307 called the rough and tumble condition of the city street work as is usually the case they kept out of the way of the more expensive pavements as far as they could. Under these conditions I have the actual practical fact of the cost of excavation and back filling in these ditches of various sizes average about 4 cents a cubic foot. The question then came up of the cost of the cast iron mains. This was 1907. The cost of cast iron mains was taken from the records of the purchase of the city of Buffalo for water purposes and \$1.00 a ton added to the piping used for gas purposes. The pipe used for gas purposes being nearer the standard dimensions are lighter than the pipe used for water purposes. The average price the best price of that year for the small three inch pipe was in the neighborhood of \$30.80. Where large quantities are used they are not apt to lump all sizes under the same price so that in getting my average for five years back of 1907 I had the following prices given: Three inch cast iron pipe per ton of 2000 pounds \$30.80. Four inch, \$28.80; six inch, \$27.80; 8 inch \$27.80; ten inch \$27.80; 12 inch, \$27.30; 16 inch, \$27.30; 20 inch \$26.80; 24 inch \$26.80. I won't carry it any further because I think the Des Moines company has nothing larger than 24 inch mains.

COURT: That is for the pipe alone?

MR. GUERNSEY: We move to strike out all of the witness' answer because it appears it does not refer to conditions in Des Moines, but refers to conditions in Buffalo at the period indicated, 1907, because it appears this plat was copyrighted by the witness in 1907, March 20th, and for the further reason that the witness has not answered the question and the answer is not responsive, the question asked him what his unit prices were in Des Moines and his answer
2308 being a dissertation on conditions in Buffalo five or six years ago, and it does not appear any of these matters are based on the witness' personal knowledge or experience set out in this plat.

A. So by reason of checking up these prices, by reason of quotations in 1910 I found from the Iron Age which is authority, I think May 16, 1910, I am not sure about the month, that the average price quoted for cast iron pipe was about \$30 a ton.

Complainant moves to strike out the answer for the same reasons.

Q. What I am getting at is the manner in which you arrived at your unit prices for excavation you have adopted as I understand 40 cents per cubic yard using the back filling, including back filling?

A. Yes, sir.

Q. Now I want you to tell the Master just how you arrived at 40 cents representing the reasonable price or charge for that kind of work?

A. By taking all of the excavations labor that was charged to the ditch work in Buffalo, compute the cubic contents of this ditch work and as I explained before not making any allowance for ordinary obstruction, but taking the rough and tumble conditions I found 40 cents covered the back filling and the excavation in the city of Buffalo in the ditches in the ordinary streets of Buffalo.

Q. Now in applying conditions in Buffalo to Des Moines was it necessary to increase or decrease the unit values which were used there?

A. Seemed to be as near similar as possible to find them.

Q. What I wanted to know was if anything in conditions in Des Moines required this unit price to be raised or lowered in 2309 making valuation?

A. What I was trying to do was to give you my unit price, not only for excavations but also for iron mains and also for such further details as occur in street laying.

Q. Have you talked with persons in the city of Des Moines who have had actual experience in making excavations?

A. I have.

Q. You have received advice from them as to their experience?

A. I have.

Q. I wish you would refer to Exhibit 23 and tell the Master what you estimate the actual present value of the street mains to be?

A. On page 58 near the top of the page total present value of mains \$852,947.

Q. Now just what items are included in that total sum that you have just named?

A. The cost per ton of two thousand pounds of cast iron pipe of each diameter the weight per foot length in pounds, special castings, lead, cement, and so forth for joints, carting pipes, tools, etc., labor, miscellaneous special castings and ditching mostly in streets without pavements.

Q. Now you may explain to the Master the manner in which you arrived at the cost of cast iron pipe which you have used in this report, explain as fully as you care to?

A. The cost of cast iron pipe varies with the cost of pig iron. It does not vary very greatly, and since 1883 has hovered around about \$30 a ton being on the average some below it.

Mr. GUERNSEY: I think the record ought to show this is not testimony of the witness, but he is reading from a book here.

Mr. BRENNAN: Simply referring to the table there I don't think he has been reading anything from the book.

2310 Q. Just state what you are using?

A. Page 393 of hand book of gas data by Gillette, copyright 1905, published 1906. Finding that the cost of iron as quoted by the Iron Age 1907 and 1910, was not different to any extent I adopted the Buffalo Table. However, I was not willing to adopt it merely on the basis of the coincidence of the price of iron and so I referred to the prices fixed by other parties in Cleveland and in Des Moines page 53, Exhibit 23. The secretary of the Cleveland Gas Light & Coke Co. gave the following scale of prices or cost per lineal foot of laying cast iron street mains in 1904.

Objected to by complainant as hearsay, secondary and incompetent on that account.

A. For three inch cast iron pipe 36 cents.

Mr. GUERNSEY: What page do you read from?

A. Page 55. For three inch cast iron pipe 36 cents a lineal foot. For four inch cast iron pipe 47 cents a lineal foot. For six inch cast iron pipe 65 cents per lineal foot. For eight inch cast iron pipe 93 cents per lineal foot. For ten inch cast iron pipe, \$1.19 per lineal foot. For 12 inch cast iron pipe \$1.44 per lineal foot. For 16 inch cast iron pipe \$2.17 cents per lineal foot, for 20 inch cast iron pipe \$2.80 per lineal foot, for 24 inch cast iron pipe \$3.75 per lineal foot.

Q. In arriving at the value of cast iron pipe for use in connection with your valuation of the property of the Des Moines Gas Co., did you have the benefit of the testimony of William Henry White given in the case of the Capital City Gas Light Company against the city of Des Moines, or City of Des Moines against the Capital City Gas Light Co., in this court?

A. Top of page 56 of Exhibit 23 William Henry White—

2311 Objected to for the same reasons, incompetent, hearsay, immaterial and further because it refers to conditions about seventeen years old at the present time.

A. William Henry White gives the following scale of prices—

Q. (Question read.)

A. Yes, sir.

Q. And is that referred to in your report, Exhibit 23?

Same objection.

A. Yes on top of page 56.

Q. In making your appraisalment of the property of the Des Moines Gas Company have you considered in your report the question of expenditures involved during the construction period, and if so just please tell the Master what you have assumed with reference thereto.

A. In Exhibit 23, pages 7 to 10, inclusive, I have given the overhead charges on the contract price of work furnished at 12 and one half per cent.

Q. What do you mean by overhead charges?

A. Interest during construction period drawings and supervision the taxes during construction period, the general manager during construction period. I have not included anything for omissions because of the fact that all of my work is based upon a verified inventory and particularly in this case there appears to be nothing left omitted, if there is any fault to be found with the inventory it is an excessive detail.

Q. What period have you assumed as covering the construction period?

A. About a year and a half or rather two summers.

Q. Just tell the Master why you assumed that period of time as being required or necessary and also if the time which you have assumed is based upon some former experience which you 2312 have had in laying gas mains.

A. It is obvious I think to everyone that two summers would suffice to put up all buildings and apparatus in the yard or on the land of the gas works, the real cause of delay in a gas works like this would be the possibility that 180 miles of mains in the streets could not be laid in two summers, but it is a fact *the* derived on my part from personal experience in laying mains that it ought not to be difficult for a gang of from 450 to 500 men to lay down 180 miles of mains in such digging and under the conditions existing in the city of Des Moines. My reason for venturing this opinion is the fact that I have underlaid nearly all, in fact all of the busy streets of Philadelphia, between the Delaware and Susquehanna and South street on the south to Vine street on the north with electrical conductors and conduits and at various other times I have made or superintended the laying of gas mains in Durham and Fostoria and in St. Louis beginning to get practical knowledge of the difficulties that occur there and knowing how relatively slight the difficulties are here as compared with the difficulties say for instance in Philadelphia.

Q. Did you have any similar experience in St. Louis?

A. In St. Louis the gas works stood on the levee and on main street when it was necessary to lay a particular main up Washington Avenue one of the principal streets there, a large main and it was then in this district my first experience. I was what was commonly known as a squab engineer, I was put in charge of a gang laying mains up that street and I had quite an experience too.

Q. What period of time was required to perform the work in Philadelphia you have described.

A. About two summers. It was performed if I may explain, it was performed under very great difficulty, difficulties 2313 of a great deal of trackage. It was necessary by order of the director of Public Safety that no two connecting blocks should be opened at the same time. We had to dig our ditch, open the ditch, lay our conduits and get it covered up again and the pavement *at* loosely put back before the inspectors allowed us to lay the next block. The blocks in Philadelphia are about 550 feet long and it was necessary to do a great deal of maneuvering in order to get

through with the work and divide the gangs and systematize the work.

Q. Did you have charge of the supervision of the gangs in Philadelphia?

A. I had entire charge of everything in connection with the work there.

Q. And was that true to any extent in St. Louis?

A. My duties in St. Louis have grown rather dim but I was obliged as inspector and resident engineer to see that all contracts complied with the specifications and I was obliged to keep all the accounts of the concern too at the same time. I had to see over all the work but towards the end of the fifteen months which was occupied by putting those works together that inspection work down at the yard slacked off and the president or the vice president, acting president started me out on the streets with the pipe laying gangs.

Q. In a former question I asked you to tell the Master how you treated river crossings in your report and I don't know whether I asked you to tell us how you have treated steam railroad crossings and street railway crossings. If not I wish you would now state how you have treated them in your report, Exhibit 23.

A. Of course a street railway crossing and steam railway
2314 crossing make a certain amount of interruption in your work when you come to it. If you can you are very apt to tunnel it. If there is a concrete bed underneath the street railway, there sometimes is, I don't know whether there is here or not it is very convenient business to take a long handled shovel and tunnel and run things through and fill it in again. If it has not you would probably have to get a couple of old ties and lay them along side the ditch and underneath just close to the rails as you can and hammer them in there with a bar about all that is necessary to do in an ordinary street railway crossing, probably cost you a dollar in extra trouble. As far as steam railways are concerned it may be necessary to do a little more than that but ordinarily there is very little attention paid to it. The inspector for the railway is on hand and the job is driven with the utmost rapidity. The work where a steam railway is concerned is alike inconvenient to the steam railway and dangerous for the men but I have no reason to believe that there is any more difficulty here or as difficult here as it is in most other places and if it was necessary to go under these roads I would not allow as a contractor more than about a dollar per pair of rails.

Q. Have you taken these matters into account and included them in your appraisal shown in your report?

A. That is another reason why I adopt the Buffalo price, keep going back to it all the time. All of this work was done not under ideal conditions at all, but under annoyance and trials and tribulations that occur in actual practice and these are all included. Did not make any deductions from the pay roll, from the material or because of unusual conditions. Just charged them in there along with the rest.

2315 Q. Now then while we are on this subject of street railway crossing and steam railway crossings and the difficulties that

are ordinarily encountered in making excavations in the streets and having to encounter the interruption of traffic and all these things just how have you applied the experience which you gained in Buffalo to conditions in Des Moines on this assumption that it would require you the use of two summers to lay 180 miles of mains. That is to say about as you applied conditions here as to comparative labor and material, etc.

A. First of all I satisfied myself as I stated before that the price of labor averaged about the same as that did here in Buffalo, that is about the same in Buffalo as they did here. Then I had to find out whether there was any variation in the cost of cast iron piping that amounted to anything. Then I had to find out whether or not there was difficulty in street excavation here that did not occur in Buffalo. I found out that it was easier to dig in the streets here in this land than it was in Buffalo. Then I checked my own opinion by comparing carefully the different rates of each size of main with the rates given by William Henry White in his appraisal of mains here. I found Mr. White's appraisal was lower than mine, that my figures were higher than his per lineal foot. I found also that the Cleveland figures per lineal foot were lower than my figures out here.

Q. I believe Professor, you made some mention that you have not allowed for omissions and I want to ask you this question whether as an experienced consulting engineer if you had been furnished with what purported to be a true accurate and complete list of the quantities entering into and forming a manufacturing plant and distribution system of a gas works together with all services 2316 mains and connections, buildings, apparatus and all property both real and personal constituting plant and gas works in making up your appraisal or your valuation thereof would you or would you not under those circumstances add anything thereto for or on account of omissions.

A. I would not make any addition to such a list as that after my comparison with it and finding its thoroughness and completeness.

Q. In this particular case from investigation you made of the inventories to verify the list of quantities contained in Exhibit 15. Were you obliged either to deduct or add to the list for any reasons?

A. I made no deductions and no additions to the list.

Q. What I want to get at was you took this inventory and listed quantities Exhibit 15 and you have made the investigations and verifications which you have told us about, I want to know now if going over the list of properties in your inventories, to verify the list if you were called upon to note anything or add anything to your report which had been omitted in this list?

A. I found no omissions whatever.

Q. Did you find from your investigations or observations that any of the properties shown in Exhibit 15 was not in use or had the appearance of having been abandoned, if so please tell us what it was?

A. I found a wreck of a bench of coal gas retorts standing in the

northern or northwestern part of the building in which or on which the roof had been removed or had fallen in. I also found two water gas generators in the northeastern corner which looked as if they had been very little used and the machinery specially intended for them in the next room I might say was practically out of use. I found an elaborately drawn coke shed which was
2317 tumbling down, or bursting, standing out on one of the lots the walls apparently burst open and the coke was flowing out from the walls from every side. There were quite a number of buildings, for instance like the oil barrel store house carefully drawn which evidently was built out of scraps picked up around the works, stray pieces of lumber, it was good management but was not a very valuable building after it was built. There seemed to be more or less material on hand there, but it was not inventoried, I mean such material which was not inventoried, but intended to be in working capital and it looked to me like a surplus and some of it very old. Special castings and that sort of thing.

Q. So that in a general way this property which you found had the appearance of not being in use?

A. Yes, sir.

Q. Now taking up your report, Exhibit 23, you first use a table of contents or an index. Then at page 1, Section 1, you state the object of your report and incidentally you say the growth of the consumption of gas is related to its price, that is considered in connection with your report.

A. It is.

Q. Section 2, you describe this appraisalment list Exhibit 15, which was furnished you and you make your comments on that?

A. I do.

Q. And in that same connection in Section 2, you make mention of this discrepancy between the actual count of the brick in the wall and computing it upon the wall measurement?

A. I do on page 2.

Q. And that you have demonstrated for the Master by the production of a model here on the desk using a certain number of
2318 brick and mortar of a certain thickness which by measurements is what size?

A. I have done so.

Q. I say what size have you found from the measurements of this brick which you have shown here is?

A. It yields sixteen brick to the cubic foot. The size of the model which I have gotten up here is thirteen by thirteen inches by eleven and one half inches high. This model gave me one and one eighth cubic feet of nine eighths of a cubic foot and there are eighteen bricks in those nine eighths amounting to sixteen bricks to the cubic foot with this old fashioned form of mud brick commonly used until a few years ago in the city of Des Moines.

Q. Well now in the buildings then have you stated the discrepancy in percentage?

A. In each building I have measured the brick to the wall so as and the wall so as to be able to state just how it varies.

Q. Now section 3 at page 3 of your report refers to the accounts and records of the Des Moines Gas Company and that suggests this question to my mind whether or not in making up your appraisal and finding the actual present cost of the property of the Des Moines Gas Company you were influenced in any wise by the reports which you received from the city's accountant with respect to the situation on the books or what the books actually show as representing the costs of those items?

A. With the exception of the operating costs in which I was wholly dependent upon the books all of my appraisement was done before the accountants were able to give me any figures. I had to anticipate any result which they might produce. All the figures with regard to construction which I quote are subsequent to the completion of my appraisal.

2319 Q. So that the actual present value of the property as shown in your report is an independent valuation found by you along the lines and by the methods set forth in this report Exhibit 23, and as testified by you upon the stand today in identifying this report? Is that correct?

A. That is correct.

Q. At pages 5, 6 and 7, you take up the subject of depreciation and proceed to subdivide the subject by using first physical decay, next obsolescence and then inadequacy. Is that the manner in which you divide the subject of depreciation?

A. It is.

Q. By physical decay I presume you mean when it was worn out and cannot be longer used in the service?

A. That is what I mean.

Q. And obsolescence where the apparatus has not kept pace with the art, or where the art rather has progressed beyond the apparatus?

A. Yes, sir. A very good example of that is the old gas lamp posts which are superseded by electric lights on the streets, became obsolete.

Q. In what manner does inadequacy form an important factor in depreciation?

A. Inadequacy occurs practically in rapidly growing places like western cities and towns and is occasioned in this way, when it is necessary to take out we will say a small main and put in a large one it is a custom to charge the cost of a small main and deduct it from the cost of the large main, the difference being charged to capital account and then the cost of the small main which is taken out is charged to repairs and the consequence is that inadequacy is very apt to disappear entirely without going into depreciation except for the residual depreciation of which I speak at considerable length which means an incurable depreciation no matter how careful your repairs may be.

COURT: What is your allowance where the property is kept up and in good repair?

A. Per thousand cubic feet?

COURT: I don't care how you put it, I just want to know what your allowance is, I just want the figures.

A. I will try to give it as briefly as I can. In the case of the works and the yard the total depreciation is about two and a half per cent, subtract from that your repairs and you get the residual depreciation.

COURT: Now for mains, services, etc.

A. In a cast iron main there is no depreciation whatever. Cast iron in the ground so far as we are able to learn from practical experience does not depreciate beyond rusting a certain amount and then stops. No man has lived long enough to know what the life is of a cast iron main. We have no records far enough back. The residual depreciation of a wrought iron service pipe is about seven per cent on the value of the pipe less the repairs for one year. The residual depreciation for meters is about fifteen per cent on the value of the meter less the cost of repairs. I think I can refer you to an article here which will give you a better understanding.

COURT: I will read this as it comes along.

A. On page 77 Section 94 residual depreciation is discussed at length in this report.

Q. Now the next item appearing in Exhibit 23 at page 7, and at section five, is the item overhead charges. What do you mean by that item.

—, When a contractor takes a contract for instance to build a gas holder he has his contract price for it which is to be paid to him. As a practical fact that contract price is not all the gas holder costs the gas company. The gas company has to have an engineer whose business it is, even if he does not make the drawings to prescribe the proper dimensions of the gas holder and to see to the location of its tank and the digging of its tank. Also has to have an inspector whose business it is to see that the gas holder is put up as specified in the contract.

COURT: That is sometimes called superintendence and construction?

A. Drawing and supervision. In the case of the Laclede Gas Works of St. Louis was the first case I know of, and William Farmer New York's greatest engineer in those days charged one per cent of the cost of the gas works, none of the street distribution, for his drawings and specifications. The gas works cost about \$750,000 and he received \$7,500. During the eighteen months' time that a foreman and an engineer, a resident engineer were busy in looking after the work following out William Farmer's drawings and specifications, about the same amount was paid in the amount of salaries for what might be called supervision, that is about \$5,000 a year, making two per cent.

Complainant moves to strike out the statement of the witness as to Mr. Farmer's charges in St. Louis and as to the extent of the plant in St. Louis and the other expense referred to in St. Louis as not proper direct examination and as offering no criterion as to what the cost would be for services of an engineer at the present time in the city of Des Moines, and is therefore irrelevant and immaterial.

A. At the time there was a certain amount of it seemed to me

unnecessary and rather costly organization expenses amounting to about four per cent or twice what the drawings and supervision cost. In the matter of taxes it is a very rare thing that taxes are charged on unfinished buildings or an unfinished piece of machinery so that the taxes would be practically only on the land and perhaps a little towards the end on some of the completed buildings so that I have put the taxes at two per cent. And the question of interest, interest being fixed at six per cent on the amount, nine per cent on the contracts in the eighteen months provided they were all paid for at end of eighteen months or at the end of nine months. The real fact of the matter is the great bulk of payments are not made on contracts or anything except pay rolls until the job is practically finished so in allowing four and a half per cent interest for half the time required in construction is a very liberal allowance making the aggregate of interest four and one half per cent drawings and supervision two per cent, taxes two per cent general management four per cent, total 12 and one half per cent overhead charges.

Q. Does that include meetings of the board of directors and legal advice and matters of that kind?

A. It was what I meant to include.

Q. The aggregate amount of your overhead charges is 12 and one half per cent?

A. Yes, 12 and one half per cent representing overhead charges.

Q. In what manner is this 12 and a half per cent overhead charges applied to the property appraised by you in this report?

A. Taking for instance a gas holder, it is evident the contract price, that is the price to be paid to the man who builds the gas holder on the ground, 12 and a half per cent is added to it. That gives you then what might be called the structural cost to the company. If the gas holder is depreciated by long usage or by any length of usage the proper depreciation is taken from it and that leaves you the present value of the gas holder.

Q. What I wanted to know is if this overhead charge of 12 and a half per cent is applied to any of the distribution system for instance, or if confined to buildings and apparatus and machinery used in the manufacture of gas?

A. It is confined to the machinery and apparatus and buildings used in the manufacture of gas and does not apply to the distribution system in the streets such as the street mains and services, but does apply to the meters in the cellars.

Q. At page 10 near the close of section 5 of your report, Exhibit 23, I note that you make some reference to the application of ten per cent in distributing charges and 15 per cent margin for profit or bad management extending over the property outside of the walls of the gas works. I wish you would tell us how you arrive at those amounts and why you apply them in this way?

A. When a gas works starts up it starts only a small patch of its distribution usually at the beginning and puts in only a few services. After getting to going it keeps surrounding it a gang of caulkers, a boss caulker and boss fitter usually and these men with such

help as they need extend the street main system and put in the house services as the demand comes for them. The result is that they do not and they cannot no matter how good men they are do as cheap work, as economic work—I won't call it cheap—as they would for a large contract where an organized gang of men could be got out for laying street mains and for laying services. After finding the raw material and the labor as well as I can and from such
2324 authorities as I could in the matter I add ten per cent for undistributed charges meaning by that whatever portion of the time of an official of the company might be required in chasing these men around looking after the work, receiving salary of all the officials of the company, but you only could get it by guessing, making a guess, it does not appear. So this ten per cent is added more for the sake of being on the safe side towards the company in the matter of the cost. The 15 per cent on top of that makes 26 and one half per cent on the original cost of raw material and labor and is added because of the fact which cannot be gotten away from that doing work on the installment plan here and there all over the city as it is handled requires a great deal of time getting to and from it and in getting ready for it and necessarily renders the labor of the men less effectual so that the 26 per cent added to what might be called the bare cost, contract cost if it was a contract job to afford a good margin for the contractor and if it was a small job take care of the company and its necessary loss in doing it.

Q. How have you computed the meters and services, what overhead charges are included therein?

A. The services nowadays if they are not ought to be about one and a quarter inch in diameter and ought to cost in the form of pipe about five cents a foot net. To that I have added from purely practical results four cents a foot for such fitting and handling and hauling as may be necessary and then taking an ordinary ditch added about ten cents a foot for the ditch making a total of 19 or 20 cents, but call it 20 cents a foot as the cost of the services. The whole increment to the service charge is practically the four cents
out of the 20 cents or about 20 per cent.

2325 COURT: How much is it, 20 cents a foot?

A. The ditch and pipe and laying of the pipe cost 20 cents a foot for inch and quarter wrought iron service.

COURT: What did you figure the average length of service?

A. I accepted what the company stated, 80 feet making the structural cost of the services \$16.00.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

2326

Wednesday Forenoon Session.

AUGUST 16, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

WILLIAM D. MARKS, continuing his direct examination, examined by Mr. Brennan, testified:

Q. We were discussing on last evening, Professor Marks, at the adjournment, the subject of residual depreciation as shown in your report. If I am informed correctly, you have taken up that subject at some length at page 77 of your report, section 94. I wish you would state in a general way, and yet in some detail, your method of computing residual depreciation.

A. A gas works may be treated in two ways: the repairs on it may be deferred as long as possible, or the repairs on it may be kept up as thoroughly as possible. In the first case, the diminution in the value of the works results from depreciation without any abatement of this depreciation by reason of repairs. In the second case the depreciation which is natural to all works is abated by repairs made as thoroughly and as promptly as possible. These thorough and prompt repairs keep the works in good working order and efficient, and to all outward appearances, in most cases, as good as new; nevertheless, there still remains what I have called residual depreciation. I have tried to explain that by taking the case of a man who is taking the utmost care of himself and whose health is perfect, and yet who is growing old. For all practical purposes an old man may be and frequently is as useful or even may be more useful than a young man, and yet we all know that the end of his wearing power, his usefulness in work is approaching;

2327 and the residual depreciation is the depreciation which repairs cannot cure. In taking it up in the case of these works I have assumed that so far as the buildings and the useful apparatus is concerned, the repairs are thorough and complete, and yet the end of this apparatus and the end of these buildings is approaching. By taking up the plant, as you will see in this report, building by building, and the machinery item by item, and by using my best judgment resulting from experience, and depreciating these buildings and this machinery as it stands before you today, I get two values: The first value is the structural cost—when I say structural cost, I mean real money spent by the Company for the purpose of erecting these buildings and of bringing together in place this gas apparatus. So far as I am able I have, in getting the structural cost, held myself down to the actual facts. There is no qualification, no condition that can be avoided that is not avoided in attempting to get the structural cost. To repeat, the structural cost is the real money spent by the Company itself at the time and under the conditions when the buildings were built and the apparatus purchased and put in place. There is no question of replacement value, there is no question of reduplication value, there is no question of any theory whatsoever. The structural cost is as near as I can get to the

real cost of these works as though I were to step on the street and seeing a horse I liked, go down in my pockets and bring up \$150 and pay \$150 for the horse; it is the same with the buildings. Now with regard to present value. The present value is a more uncertain quantity. To get the structural cost most accurately, I would say that the books are the best evidence, provided they have been

kept properly and are properly interpreted; always the books
2328 are the *the* best evidence for the structural cost. When you come to the matter of the present value, then you have a matter in which the honest convictions of experienced men widely differ. There are three ways in which works depreciate. Physical decay, as I have called it, is called in England and in the published reports of English works, wear and tear. Then there is the question of obsolescence. The progress in the manufacture of gas, that is, in the art is, compared with many other arts, rather slow. At the same time there is and has been, particularly of late years, a good deal of progress in the direction of high economy, and in order to get the best economy it is necessary, if not to vary the principle, at least to vary the methods of applying the principles concerned in the manufacture of gas. Inadequacy, the third factor in depreciation, is a growing factor. The plant grows inadequate as the community grows larger; and this inadequacy is to be covered by the enlargement of the works—sometimes by means of additional apparatus, sometimes by means of larger apparatus. Now, there are three factors acting on the works to depreciate its value, each one giving what might be called a life to the particular building or piece of apparatus or pipe; and whichever factor gives the shortest life, is the one to be used. If wear and tear or physical decay for a certain machine would give it a life of twenty-five years, and inadequacy a life of twenty years, and obsolescence a life of fifteen years, we will have to ignore the twenty year and the twenty-five year, and use only the fifteen year for obsolescence as the measure of its actual depreciation. I have stated in my report at the outset that it would be im-

possible and insincere to state that the art of depreciation
2329 could be reduced to a science of rigid rules; it can not be.

Depreciation of these works, to the best of my judgment, amount on the whole—allowing also for the appreciation of the land from \$36,000 to \$100,000—to about \$300,299. Now the records of this Company in one of its exhibits show that since the Company started they have had about 4,400,000,000 sales of gas, and still further back of that an unknown quantity of which the last year was about 43,000,000 and the period in the neighborhood of twenty years. I have not been able to learn the history of this Company, but have been told in a vague way it started about 1868 and became organized, or crystallized in about 1875. So that I have taken in round figures as the probable total sales from the beginning about five billion cubic feet, and dividing this into 299,000 gives me about six cents per thousand cubic feet as a depreciation which good repairs—and the works are in good repairs—have not been able to cure. Now I wish to say that when I speak of six cents as being the residual depreciation per thousand cubic feet I am forcing a relation between the sales of gas and the depreciation which has no rational,

no practical connection. The depreciation is based upon the time elapsing and upon the value of the apparatus, buildings or plant, and therefore, as you see, is not directly connected with the sales of gas or the output of the plant. But as it is necessary in ordinary business to protect the company, having found the lump sum of residual depreciation, it seems proper to add about six cents to every thousand cubic feet and put it in the cost of gas. Now I had occasion to make a very long investigation in Massachusetts in a somewhat different field, in regard to depreciation per thousand

2330 cubic feet, and I found that the depreciation went down, growing smaller and smaller in quantity per unit of sales as the number of units of sales in each year increased. In other words, this six cents per thousand cubic feet which I have obtained is the average depreciation. Going back toward the middle of the period which is included, at the early part of this period, the depreciation per thousand cubic feet was very much higher than six cents per thousand cubic feet, and in new works is sometimes very high indeed at the outset, and along towards the present date it has grown lower than six cents rather slow, so that in putting in this six cents residual depreciation, I have put in a quantity which in my opinion, and depending entirely in the case of others on your reliance, on my experience and judgment, is considerably over rather than under the actual residual depreciation occurring in the year 1910.

Q. Now, you use the figure six cents per thousand cubic feet of gas sold as representing the amount charged off for depreciation, that is in round numbers, in your report at page 78, you use the exact figures as 5.98 cents?

A. I do, and for the reason which I have just explained, that I do not claim decimal accuracy at all for my results.

Q. In valuing the real estate as you have in this report, at \$100,000 was that your independent judgment of the value of the real estate or was it based upon information which you received?

A. Upon information which I received. I know nothing about the value of your real estate.

Q. How did you happen to adopt in round numbers \$100,000 as representing the value of the real estate of the Des Moines Gas Company?

2331 A. I think I heard General Byers say to you that a certain man in whom he had great confidence said \$100,000 was about right.

Q. Now before I forget it, I want to ask you a little more in detail in respect to the unit prices and the cost of cast iron mains in Des Moines, I want to ask you, Professor, whether or not the prices which you have used in your report are based entirely upon your experience in the city of Buffalo or the city of Cleveland, or are there other factors which enter into the prices which you have used in Des Moines, if so, please state just what you considered in that connection?

A. Again in the matter of prices the question of experience and judgment comes up. In attempting to obtain the structural cost of the street mains here, it was necessary for me to gain a knowledge of the average cost of work covering in a general way your system of

street mains. From the records of the trial between the Capital City Gas Light Company and Des Moines in 1894, I found at that time that your best authority, William Henry White, so far as I personally knew, the people concerned gave a list of cost of laying mains in the streets of Des Moines that coincided very closely with the prices per lineal foot which I had obtained and graphically laid out in the blue print which I handed to you yesterday based on Buffalo figures in 1907. In the year 1904 I found amongst my *my* papers a memorandum of the cost of laying mains in the city of Cleveland, whose soil and conditions resemble yours very closely, and I found that this list of prices sworn to by Mr. Beardsley, if I remember rightly, for Cleveland, coincided very closely with the rates and graphical diagram for Buffalo. In both cases I found that the price

2332 for the four inch and six inch mains which form the bulk of your system *are* fixed by Mr. White in 1894 and Beardsley in 1904, was somewhat less than the price per lineal foot which I had obtained in Buffalo, and feeling it necessary to always be on the safe and liberal side in so uncertain a matter as an appraisement, I took the Buffalo scale and used it as giving the larger results for Des Moines than had been claimed by Mr. William Henry White, or had been claimed in the case of Cleveland by Mr. Beardsley, giving a larger and higher appraisement of the street mains than would have resulted from either Beardsley's prices or William Henry White's prices, and also what I was desirous of getting, not the price of today in 1910, but the average price during a period ranging from 1894 up to 1910, the money, the real money probably paid out by this company for its underground system.

Q. Now with respect to your unit prices for productive labor and materials entering into the building connected with the manufacturing plant, what basis did you have for using the prices you have used in your report?

A. Well, in Cleveland I was obliged to begin from the ground up in regard to each—

Mr. GUERNSEY: I beg your pardon I do not believe the question is about Cleveland, and I submit we will get along faster if we confine ourselves to Des Moines.

A. I was obliged to begin from the ground up in Cleveland and obtain there the prices of 1910, both for labor and for material, and I again compared my Cleveland prices with such prices as I could get here in Des Moines, and I concluded that the results would be correct enough if I used my Cleveland unit prices, for instance for brick. Taking the matter of brick, for instance, I figured
2333 this way: Knowing that the mud brick was very cheap and far below eight dollars, and that the hard burnt red stock brick used in other parts here probably cost a little more than eight dollars per thousand; I again added four dollars a thousand for brick layers, that is about forty cents a hundred, and a brick layer is supposed to do thirteen hundred or fourteen hundred brick a day in factory or warehouse work if he is left to his own way, although in large walls an active brick layer has been known to throw in three thousand brick a day and put them in good enough shape for ware-

house and factory work. Fourteen hundred brick a day was what I took, cutting it in two, and that gave me twelve dollars. I find that your lime here in small quantities is seventy-five cents a barrel, and in large quantities one might be getting it somewhat less; and the sand, in trying to dig the foundations of the works there they had to dig out a lot of sand; so you see sand is very cheap and everywhere along the banks of the river here. So I added a dollar for the lime and sand, making thirteen dollars. Well the contractor ought to have some profit, so I added three dollars contractor's profit, making sixteen dollars. Then as he had to put in scaffolding I added the customary cost of that, which is about one dollar per thousand cubic feet, if the scaffolding is new and has never been used before. But in this case, as in all cases, I assumed the conditions most favorable to the company, which is \$16 a thousand for brick and \$1 extra for scaffolding. I presume if you will average over the mud brick with the hard red stock brick which *which* I heard called shale brick here, that \$16 to \$17 is about what you can figure the brick work having cost here. That is one of the units I obtained.

2334 Q. You spoke about securing some information from local people did you talk with persons who have been engaged in constructing buildings in the city of Des Moines?

A. I was largely guided or rather confirmed in the figures which I have obtained here by a conversation with an outside contractor who is building this bridge over here; I can't recall his name, who appeared to me very intelligent, and who shipped in his material most of it from the outside, buying it in the best market, and by the information of a Mr. King—that is all hearsay—who I had been told dug up most of the streets.

Q. Do you refer to Mr. Wheeler of the Wheeler Construction Company?

A. Yes, that is his name.

Q. Now turning to Section 7, page 13, of your report, Professor Marks, you first have a description here of house #1-A and B erected in 1892, with a description of the building, and under the heading structural cost we find the contract price \$6,904.92, to which you add overhead charges of twelve and one half per cent and then find the total structural cost \$7,768.04 from which you have deducted depreciation for 18 years, 25 per cent, \$1,942.01, the \$5,826.03 represents the present value of that building, does it?

A. It does.

Q. Now in your judgment, Professor Marks, does that sum represent the present value of that building for any purpose?

A. It does not. It represents the present value of that business for the purpose of making gas. If you will allow me to add to that—throughout every part of this work the value for the purpose for which these buildings and this apparatus is intended is a value which I faithfully tried to obtain. Taking for instance the ma-

2335 chinery; we all know that the moment machinery is bought and put in use its salability cuts it right down to fifty per cent of its price new; it is second-hand. I have done no such thing

as that in connection with the machinery or anything of that sort. I have always tried to rate the value for the purpose for which it is intended.

Q. Is the sum \$5,826.03 does that represent in your judgment the true value of that property for the purpose for which it is used?

A. At present, yes.

The MASTER: What do you fix the life of the building at?

A. In this case about fifty years. I summarize the system of depreciation—

The MASTER: I wanted to know what you fixed it at?

A. Fifty years.

The MASTER: How old was it?

A. It is 18 years old.

The MASTER: Did you examine the foundation?

A. I could not examine the foundation without digging, except what I saw.

The MASTER: The length of life very much depends on the life of the foundation?

A. Yes.

Q. Now, you take up Section 8, which contains purifying house, and you have used as the contract price \$16,835, to which you have added as overhead charges $12\frac{1}{2}$ per cent or \$2,108.37 and have deducted as depreciation \$6,440 your present value as found on page 14 in your report?

A. It is \$13,819.

Q. In your judgment does that represent the true present value of the contents of the purifying house described at page 14 of your report for the purpose for which it is being used?

A. It does.

Q. Now, each and every one of the items referred to in your report makes a cross reference to the inventory?

A. It has.

Q. And that is Exhibit 15?

A. Yes.

Q. And in each and every case in this report where you have fixed the present value of the property referred to at the prices and values which you have used, are they in your judgment the true present value of the property for the purpose for which it is being used?

A. Yes.

The MASTER: Right there I want to understand one thing as to Section 8. You get an average annual depreciation of \$147.

A. Yes.

The MASTER: Now, how do you get that, by dividing 17 into the 6440?

A. Depreciation, 17 years immediately above it, dividing that into the total depreciation, 6440.

The MASTER: Which would be more than \$147?

A. I will multiply that out. There is such a large number of those computations, I forget how did each one of them, I have to go over it. Will you allow me to bring the memorandum from my room?

The MASTER: Yes. I wanted to know whether you figured any interest on this?

A. There is no interest on it at all, straight depreciation.

2337 The MASTER: 34 per cent would be pretty near right—17 into 6440—it would be a good deal more than \$147?

A. Yes, the fact of the matter, there has been something about the obsolete steam hydraulic elevator in there. I will get that this afternoon and bring it out exactly.

Q. At page 58 of your report, the recapitulation being a part of section 76, that shows the total present value of all mains in the system, 183.98 miles in length, \$652,947. Does that represent the total cost of street mains from the beginning of the first gas company up to the date of your report?

A. On the top of page 58 \$652,947 gives you the total present value of the mains.

Q. Are there any overhead charges included there?

A. Above cost of productive labor and raw material there are two charges made in there; one of ten per cent for undistributed charges and another 15 per cent to allow for contractor's profits if the work is done on a large scale, and to allow for unavoidable losses if the work is done in an interrupted way by the company itself.

Q. Well, in your judgment, Professor, did \$652,947 represent the true value of the street mains in the distribution system of the Des Moines Gas Company as shown in this report?

A. It does.

The MASTER: I thought there were four mains in the river?

A. There is one 24 inch main and there is two 16 inch mains, aggregating 1300 feet, and one 8 inch main.

Q. Now, commencing at page 72 of your report, you show a summary of the tangible property of the Des Moines Gas Company up to November 1, 1910; why do you use November 1, 1910, as the end of the period used by you?

2338 A. It was the date of Exhibit 15 furnished by the Gas Company as the list of its property.

Q. Now, at page 75 of your report, Exhibit 23, you have a recapitulation of your appraisals up to November 1, 1910, and you have itemized the buildings and contents and other property and deduced as the structural cost the sum of \$1,700,215, and in the other column under present value, you fix the present value of the tangible property of the Des Moines Gas Company at \$1,410,087. Now I wish you would tell the Master whether or not in your judgment the amount which you have used as representing the present value of the property of the Des Moines Gas Company is its true present value for the purpose for which it is being used on the first day of January, 1911?

A. On the 1st day of November, 1910, I think it is.

Q. You mean the property that was in use by the Des Moines Gas Company on the 1st day of November, 1910?

A. Yes, that was the date of the list furnished me by the Company.

Q. Now, at page 76 you have a summary of rejected tangible

property claimed by the Des Moines Gas Company and not allowed by appraisal in rate cases; now I wish you would explain to the Master why you considered the items which you have rejected as being properly rejected in an appraisement of this character?

Objected to on part of complainant as calling for the conclusion of the witness on a question of law and therefore incompetent.

A. The pavements claimed by the company, according to the figures given by the city authorities, amounted to \$204,994. These pavements were put down by the taxpayers and the city authorities and not by the company. The cost of lifting pavements off the mains \$28,242 was rejected by me, because, except for re-
2339 pairs or replacements, which would properly be charged up in most instances to repairs. It is my opinion these pavements had not been lifted at all. Line pot drips, \$3,000, is a small quantity which is included in the rates given resulting in \$652,000 total. The steam and street railway crossings \$636, is also included in the \$652,000. The pavements for services laid under street paving \$35,441, is rejected for the same reason; that is, while there are pavements I presume lifted for the purpose of putting in services, the proportion of them is very small, and in the majority of cases these pavements are lifted for the purpose of repairs and charged to repairs and consequently to the cost of gas. The taking up of these pavements for services is left out for the same reasons. This gives a total of rejected claims of \$280,081.

Q. Now at page 58 of your report in the recapitulation shown thereon you give as the total present value of mains \$652,947, and below the figures to which I have called your attention, you say that the total cost of street mains from the beginning of the first Gas Company to date, appears to be recorded in the company's books as \$647,290.35; so that your estimate of the value of the street mains is in excess of that shown upon the company's books, if you have given the figures correctly of the condition of the books?

A. I should make a correction in regard to that last figure, \$647,-
2340 290. Yesterday evening the city's accountants told me that in further investigating the books of the company they had found that \$5,000 or about that of the cost of sinking the mains in the bed of the river had been charged to operating expense and not to capital account, so that that sum as reported from the books should not be \$647,000 but should be about \$652,000. I ought to
say at once that I utterly disclaim, except as a matter of accident, any such accuracy as would appear from the books and the estimate.

Q. What I want to know is whether or not your present estimate of the present value of the street mains \$647,000 was arrived at through the use of the books of the Company by you in connection with your investigation?

A. I had never seen or heard a figure from the books until my estimates were completed.

Q. So that it is absolutely independent from the books and records of the Company?

A. Entirely independent.

Q. I notice at page 98 of your report Exhibit 23, you have given some consideration to the subject of going value. I wish you would please state to the Master whether by so doing you considered it a proper subject in connection with a rate case?

Objected to as being incompetent.

The MASTER: It strikes me that is a law question.

MR. BRENNAN: The only purpose for which I asked the question is to show, by introducing this subject into this report that he has not admitted thereby that it is a proper item to be considered in connection with the rate making cases and neither does the city admit it.

A. Going value as defined there should not be used in rate cases; it was introduced for another reason.

Q. What purpose did you have for introducing the subject in your report.

Same objection as last above made, and it is wholly irrelevant and immaterial.

2341 A. To show that the market value of a proper capitalization would not be injured, but on the contrary would be somewhat enhanced by the fixing of the rate at 90 cents.

Q. Now that suggests to my mind this question, Professor: In computing the cost of manufacturing and distributing gas in the city of Des Moines, and the earnings of the company, based upon a 90 cent rate, what have you used as representing a reasonable return on the investment, what per cent.

A. Six per cent.

Q. And in this report at page 98, you have taken the excess profits as I understand it, derived from the earnings over and above the six per cent return?

A. 86 cents, yes.

Q. Now if you shall take the amount of profit over and above the six per cent which you have computed as a reasonable return upon the investment and add it to the six per cent, what rate of return will be afforded the Des Moines Gas Company on the 90 cent rate as shown in your report?

A. About 7.4 per cent on the present value and the working capital added together.

Q. On last year's sales?

A. For the year 1910.

Q. Does that profit 7.4 per cent in the investment in your report accrue to the Des Moines Gas Company after taking care of operating expenses, overhead charges, depreciation and taxes?

A. That is it. Pardon me for correcting a little bit—also allowing six cents as a fund which they have never yet created to take care of what I have called residual depreciation, after making all the repairs in the most thorough manner possible.

The MASTER: That is, six cents per thousand cubic feet of gas?

2342 A. Yes.

Q. The MASTER: That makes your gas actually cost 69½ cents delivered to the consumer?

A. 69½ cents.

Q. I wish you would explain at some length your method of capitalizing excess profit, what choice the company would have with respect thereto, whether they should add it to the six per cent and declare dividends thereon or whether it would enhance the value of the stock in the investment?

Objected to as being purely argumentative and irrelevant. Everybody knows it is a matter of common knowledge that you can do what you please with your earnings.

A. It is purely a matter of opinion, I was going to say, amongst the investors as to whether six or seven and a half per cent is what they should demand on an investment in a gas company. The Supreme Court has fixed it at six per cent. If six per cent is satisfactory, there is a margin left of four cents of extra profit per thousand, because \$6 from 90 leaves 4. I am talking in round figures, and as there was 528 million cubic feet of gas sold that year, I would multiply 4 cents by 528 million cubic feet and that gives me \$21,135, a lump sum of extra profit for the year 1910. If I capitalize that at six per cent it gives me as the capital \$352,250, which at six per cent will produce \$21,135. If now I add the present depreciated value \$1,401,000, working capital, \$68,000, going value, as I call it, which is simply capitalized extra earnings, I get a total market value of \$1,821,000. I assume what is perfectly natural in this matter, that the company issue stock for all the money which it got
2343 or spent, and that is the structural cost of the concern, or about \$1,700,000, and if all the stock is worth in the market \$1,821,000 it will put each one hundred dollar share of stock at \$103. Now that boils itself down to a six per cent investment worth \$103 a share; on the other hand, if the investor insists on seven and a half per cent, or 7.4 per cent you bring the stock at once down to par by that insistence and the rate of profit on it to 7½ per cent, speaking in round figures. In that case there is no going value because if 7½ per cent is right then there is no extra profit, and in fact if the city council had fixed on any given rate of profit and then fixed the price which actually brought that profit to this company which would be theoretically just and right, there would be no going value; in fact there is no going value in this rate case at all, and there shouldn't be.

Q. So that your method of computation is to give to the company the choice of returning in the first instance of this 7.4 per cent on the true present value of its investment or to use the excessive profit of four cents per thousand cubic feet of all gas in increasing or enhancing the value of the stock.

A. Yes.

Q. Now, Professor Marks, something has been said in this case that the company has paid some nonresident officer the sum of \$10,000 which has been charged into operating expenses, and I

presume in arriving at the cost of gas you have included that \$10,000 as being properly there in the operating account, is that true?

A. No, but I have included the charge of \$10,000 in the cost of gas.

Q. You have assumed for the purpose of this report that
2344 the \$10,000 is in there?

A. I have allowed the \$10,000 to remain there.

Q. Now if we shall deduct the \$10,000 from the cost of making gas, what would be the rate of the return on the investment based upon the sales for the year 1910?

A. If we consider the \$10,000 and the 528 million cubic feet together, it is very nearly two cents per thousand cubic feet if we take off the \$10,000. The cost which I got originally was 69.33 inclusive of depreciation. Taking off 2 cents I get 67.33. The investment in present value and working capital is 2.78 per thousand cubic feet and the profit on each thousand cubic feet of gas is 90 cents less 67.33 or 22.67 cents, which gives me 8.1 or in round figures eight per cent on 2.78, the investment due to present value and to working capital in the thousand cubic feet of gas.

Q. Will you tell us, say for the year 1910, if we shall deduct \$15,000 representing the amount paid nonresident officers, and \$5,000 for legal expenses, if we deduct \$15,000 from the cost of making gas for the year 1910, will you please state to the Master what it cost the company to manufacture and distribute gas in that year?

A. If the Master will permit me to say, \$5,000 is about one cent per thousand cubic feet; so the first \$10,000 is two cents off of the cost of 69.33 and the next \$5,000 is another cent off so that you have 66.33 as the cost of taking off \$10,000 and then \$5,000. It might be a little more than 66.33; between that and 67 cents.

Q. What I was trying to find out, do you assume 69 cents in round numbers was the cost of manufacturing gas in the year 1910 or did that represent the average cost?

2345 A. The average cost for five years is given in my report in considerable detail in section 96, page 82, and the average cost for the period of 5 years is given on page 84, at the bottom of the page, for making and distributing and measuring gas, collecting bills, making repairs, allowing for residual depreciation, taxes, legitimate expenses, donations, insurance, bad debts, and sundry small expenses, as 69.33 cents; this covering a period of five years.

Q. What I would like to have you do if you can conveniently is to take for instance the amount of gas sold by the company in the year 1910 and the amount of revenue derived therefrom, and then add to the net receipts \$15,000 and then tell us what it actual cost them to sell gas in the city of Des Moines in the year 1910 and assuming that the books show for the purpose of the question that the net receipts were in round numbers \$186,000?

A. I beg your pardon—if I take the receipts and divide by the amount of gas I get the average price which is received; if I take the operating expense and divide by the amount of gas I take the

cost which is paid. As this question reads I am requested to deduce the cost of gas from the receipts for gas.

Q. What I wanted to have you do is this: The company's books you may assume for the purpose of this question, show that they received net in the year 1910, \$186,000. Now there is \$15,000 that has been used in paying legal expense and in paying salaries to non-resident officers; so that if we add \$15,000 to the \$186,000 we then have \$201,000 net receipts. Now what we wanted to know if you could, by knowing the net receipts, and the amount of gas sold, considering the expenses which were charged off, whether you could give us the cost to the company of selling gas in Des Moines
2346 in that year?

A. The price to the consumer you wish?

A. Yes.

Q. Then I divide by 528,375. It does not divide out right. I should like to go into the matter if you will allow me.

Q. All right.

A. On page 85 you will find the collections for the year ending December 31, 1910, were \$538,893. Now immediately opposite that to the left hand side you will observe that the sales in cubic feet are given 531,991,054 cubic feet. In this case they have given you not only the sales in the city of Des Moines but also as I understand it the sales in the village of Valley Junction, and it is the only place where it appears. Ordinarily I have somewhat incorrectly used 528,375,000 cubic feet of sales in the city of Des Moines in my computations of cost. I have done this as I have uniformly done throughout my whole report in a spirit of liberality towards the company to throw any doubt there might be in the matter in their favor. Now returning again to the \$538,893. collected December 31, 1910, you wish me to add \$15,000 more to that?

Q. What I want to get, if we deduct this \$10,000 and the \$5,000 what I want to get at first, is what it would cost to consumers of Des Moines for gas in the year 1910; what they paid for gas?

A. You are asking me for 1910, not for the five years?

Q. For the year 1910.

A. Computing it roughly, it may be slightly wrong, \$1.01.29 on an average in the year ending December 31, 1910.

Q. Now the return which you have computed to the company on the basis of the ordinance in controversy, as I understand you, is based entirely upon the sales for the year 1910 and does not
2347 take into account any future sales?

A. It does not.

Q. What is the effect, if you know, upon the business, especially the gas business due to a reduction in the rate; that is to say whether or not business is stimulated or retarded?

A. Business is increased by a reduction in the price, and by that I mean the sales per capita of population is increased by a reduction in the price in almost certain regularity.

Q. Have you made any observation with respect to the results of the reduction in the price of gas in other cities?

A. I have made extremely careful studies of the results of reduction in the price of gas, beginning as far back as the year 1900 in a numerical way and using as the basis of my study the recorded facts in regard to the gas light companies of Massachusetts, that is all the various cities of Massachusetts, following them up at intervals carefully and in detail.

Q. Are these tables referred to in your report?

A. On page 91 I have given the results of investigation of all of the towns and cities in Massachusetts for the year 1910 and on page 94 I have given the relation of the price of gas to the per capita sales of gas for the years 1901, 1907 and 1910, showing average results from the various gas companies grouped under the prices at which they sell gas, beginning with \$2.25 and running down as low as 80¢ per thousand cubic feet.

Q. The table to which you have just called attention shows when the price of gas was \$2 per thousand cubic feet in 1901, the sales per capita were 584, and the sales per capita for 1910 were 988 and the average sales per capita for that period was 910. Now going to the bottom of your table where the price of gas was 80¢ per 2348 thousand the sales per capita increased to 5,760, is that correct?

A. Yes. That is in the year 1910. You will note, I will call your attention to the fact that the price of gas in 1901 was as high as \$2.25. When you get to 1907 the number selling gas at \$2.25 became so inconsiderable it was not worth while putting it in; that was equally true of 1910. The whole trend and drift and everything goes slow in Massachusetts, but is from a high price down to a lower price, and it is only in 1910 that any noticeable number of Massachusetts gas companies have reached 90 cents and 80 cents and the very large returns that resulted from selling at 90 cents and 80 cents.

Q. Now assume that at the end of the year, we will say one year after the ordinance was in force, the one in controversy, that the sales of gas would amount to say 600 millions, about what would be the rate of return based upon your valuation in this case?

A. About ten per cent with gas at ninety cents. I obtain that in this way: it is only a rough, rapid approximation, which will make matters clear to you. The present gas company is turning out about 531 million feet annually and it is drifting on towards 600 million annually. I don't know what it is to-day; but the thorough business management—I hope Mr. Haines is not here—that Mr. Haines gives this concern, the way in which as a business man he has pushed it and has made your consumption per capita quite large, unusual under the conditions of dollar gas, showing as I said before, admirable management, I have no doubt that impetus will carry it right on to 600 million in a very short time. When you get to 600 million, all that will happen will be they will use some more oil and some more coke and some more purifying material; but speaking generally they will have no more men at work, they will
2349 have to put in no more apparatus than they have to-day; and an odd thing will happen, which is very rarely thought of.

While the additional cost of gas per thousand becomes about 25 cents as shown on page 96 of my report, the increase in the sales from 528 million to 600 million will reduce the investment per thousand cubic feet of sales so that this increase of sales works both ways under existing conditions; it cuts the cost of gas down and the gas to consumers down to about 64 cents, because all there is added for each thousand is 25 cents worth of material, oil, coke, etc., at the same time it cuts the investment per thousand cubic feet down to about two fifty and 64 cents cost taken away from 90 cents price, leaves about 26 cents which is profit on a thousand cubic feet of gas and also profit on about 2.50 investment; and it is a little over ten per cent that today these gentlemen could have for 600 million cubic feet.

Q. If the reduction in the price of gas shall stimulate the business beyond that, of course the profits will increase proportionately?

A. Yes; there is one point I ought to qualify and that is this: in my report I called attention to the fact that about three million cubic feet daily capacity sales was about all that was safe for them to carry. I called attention to the fact that their purifiers and possibly their holders would have to be increased when they got up to three million cubic feet or 600 million annual capacity. Now the moment they reach that point that they have to put in more investment in holders and purifiers and that sort of thing, why you then have again a larger investment that is perhaps temporarily even larger than 2.78 which I found to be the case with 528 million cubic feet annual sales. I am only talking now of going over 500 million cubic feet to 600 million cubic feet. This is not a case of 2350 going on indefinitely, like Mr. Hagenah's computation would lead you to believe.

Mr. GUERNSEY: We move to strike the answer as grossly improper, not responsive and argumentative.

Mr. BYERS: We except to counsel's remarks of grossly improper.

The MASTER: Would it not also likely increase the mains' services and meters?

A. They would have to increase the mains some if it went up beyond 600 million.

The MASTER: And services and meters?

A. Not necessarily services and meters because of the fact that consumers seem to have just about so much money in their mind that they can spend for gas, and if you reduce the price of gas in a community the family will move up to the use of it to the sum they will stand and the increase comes right along up in that way. The addition in new meters is comparatively trivial as well as in new services. I was referring more particularly to the large apparatus for storing gas, the holders and from the fact that they ought to have another set of purifiers or a bigger set as soon as they got up to three million a day.

Q. I was going to tell you to tell the Master what the experience was in New York City after the case had gone to the Supreme Court

of the United States and after they commenced offering it under the new ordinance.

Objected to as being incompetent.

The MASTER: His judgment, observation and experience is competent, but what is done in this place or that place and another raises a collateral question.

Mr. BRENNAN: I was going to have him tell in a general way after the price was reduced in New York how it affected the sales.

Same objection as last above made.

A. In New York City and the Island of Manhattan it resulted in increased sales and increased profits, causing the company after a year's trial to decide to go on at 80 cents and not ask the court to decide it.

The complainant moves to strike the last part of the answer as hearsay and incompetent.

Q. What is the fact as to whether or not the company did renew its application in New York to have the rate fixed in the ordinance set aside?

Objected to on part of complainant as being incompetent.

A. It did not apply to have the 80 cents set aside.

Q. I wish you would refer to the tables in your report commencing at page 91 and explain a little more in detail, if you care to, with respect to the experience in Massachusetts due to the reduction in the price of gas?

A. The tables I am speaking of are based entirely on the practical results to be gotten in the state of Massachusetts as reported by the gas companies to the Massachusetts Gas and Electric Light Commission each year, and these reports go back as far as 1888, but I have only referred to them as far back as 1901. Beginning, however, with 1910, and working backwards, I find that the cities of Boston, Lynn, Worcester have gas ranging from a price of 77.8 cents to 80.5 cents and that the average sales per capita under these conditions are 5760 cubic feet. The cities of Charlestown, Cambridge, Fall River, East Boston Laurens, Lowell, New Bedford and Springfield have gas at a price ranging from 85.4 up to 92.7 and the average sale per capita in those cities at these prices is 4,106 cubic feet. The cities of Dedham, Haverhill, Milton, Newton, North Adams, Revere and Taunton sell gas at a price from 97.7 cents up to \$1.04 and the average sales per capita are 4,007 cubic feet. The cities of Adams, Brockton, Fitchburg and Salem sell gas at prices ranging from \$1.10 to \$1.14 and the average sales per capita are 2,608 cubic feet. The cities of Arlington, Foxboro, Dover, Blackstone, Chicapee, Williamstown, North Hampton and Pittsfield sell gas at prices ranging from \$1.16 to \$1.33 and the average sales per capita are 2,220 cubic feet. The cities of Athol, Quincy, Clinton, Danvers, East Hampton, Framingham, Leomin-

ster, Barre, Woburn, Norwood, Spencer and Webster sell gas at prices ranging from \$1.41 to \$1.62 and the average sales per capita are 1,341 cubic feet. The cities of Emsboro, Greenfield, Marblehead and Plymouth sell gas at prices ranging from \$1.63 to \$1.84 and the average sales per capita are 988 cubic feet. The cities of Nantucket, Gardner, Ipswich, and Stoneham sell gas at prices ranging from \$1.88 to \$2.06 and the average sales per capita are 614 cubic feet. Referring now to the year 1901 and 1907 as well as the year 1910 for which I have just given the details I find also that there is a steady growth in the sales per capita of gas due to the growth of apparatus with which the gas is consumed—I refer more particularly to heating and cooking purposes—and looking over the results for instance in the case of \$1 gas in the state of Massachusetts I find that in 1901 the average sales per capita of \$1 gas was 2393 cubic feet and in 1907 3824 cubic feet and in 1910, 4007 cubic feet, showing a steady growth at a constant price of one dollar, just such a steady growth as you have found very markedly shown here, owing to the excellent business management

of which I have already spoken on the part of Mr. Haines.
2353 Now if we take the sales per capita in 1910, 4007, and subtract the sales per capita 2393 for 1901, we have a difference of 1614 cubic feet occurring in the space of nine years, or an average annual increase in the sales per capita of \$1 gas of 179 or 180 cubic feet. In addition to that referring again to the same page, 94, we find an increase in the sales of gas which appears to come from a reduction in the price. Now, where the price of gas is reduced when it is higher than about \$1.25 the results seem to be very irregular; but when you get down in the neighborhood of a dollar, the gas changes its relation to the community and is no longer a luxury, but becomes a sort of a commodity which everybody expects to use for cooking and for the purpose of occasionally heating, and then the response to reductions in prices becomes very regular as compared with anything that it is when it was a luxury; and you can expect for each cent reduction in Massachusetts—of course I don't know what it is elsewhere—an increase in the sales per capita ranging all the way from 15 to 50 cubic feet; but always an increase every time you put down the price of gas.

The MASTER: In other words, it has a tendency to make them a little more extravagant?

A. It seems as if every man had a lump sum he was willing to spend for gas; if the gas is high he cuts it down; if it is low, he lets it go until he gets up to that sum.

The MASTER: He gets it anyhow?

A. Yes, he spends it anyhow.

Q. You said something a while ago about your reasons for not considering this going value in connection with a rate case. This thought occurred to my mind, if a man in the ordinary affairs of life and business was permitted or thought it prudent, rather,

2354 to add to the cost of a commodity he had for sale what he might term the value of his going concern, would he be able to get anywhere in the field of competition on that basis?

Objected to as wholly argumentative, irrelevant and immaterial.

A. He would probably not be able to succeed in a competitive business if he added his going value as a basis to the price.

The MASTER: Would not that depend a little on the business?

A. Nothing except in the case of patents.

Mr. BRENNAN: The defendants now offer in evidence defendants' Exhibit 23.

Mr. GUERNSEY: Objected to because it is incompetent and because it is based upon hearsay and not based upon the experience of the witness or the conditions here in Des Moines, and the same objection is made to each part of it. I want to make a separate objection to each part of it and as to each section of it on account of the quotations contained therein.

Q. I want to ask you in reference to the item of \$68,000 which you allow for working capital. Upon what basis did you compute working capital and arrive at the sum of \$68,000 as the proper amount for that purpose?

A. On the basis of about 13 cents per thousand cubic feet of annual sales, giving about \$69,000.

Q. And the cost of gas includes this amount as working capital as computed by you?

A. It does.

Q. Do you refer in your report to the 13 cents which you have computed as the basis for your working capital?

2355 A. I do.

Q. Please state where it is referred to in your report?

A. On page 81 I go into the subject of working capital, both when construction is going on and also when operation is going on, calling attention to the distinction between working capital required during construction and the working capital which may be required during operation.

Q. Is the 13 cents you use simply an arbitrary figure, or is it one you use based upon your experience as a consulting engineer?

A. It is empirical constant, and something the result of considerable experience, modified by my judgment as to what would be liberal.

Q. Was the subject treated in the consolidated gas case with which you were connected by Judge Huff?

Objected to on part of complainants as being hearsay and argumentative.

A. It was. Judge Huff didn't pay very much attention to the testimony. He said a million dollars was enough and let it go at that on annual sales of about 14 million cubic feet of gas.

Q. Well, is it your judgment, Professor Marks, that 13 cents per thousand cubic feet of gas is all that should be allowed to the company to represent working capital?

A. Yes.

Cross-examination by N. Y. GUERNSEY, Esq.:

Q. Turning to page 14 of your report, which was referred to in your direct examination, can you tell us the theory on which you obtained the average annual depreciation there of \$147.

A. The Master just asked me about that.

Q. I want to know, whether without looking it up you can
2356 tell us the theory on which you computed that?

A. I think it is a typographical error; it was computed and not used afterwards and overlooked in my final revision, simply because that method of obtaining annual depreciation, residual depreciation was abandoned.

Q. What was the method; I don't care for the figures, and I don't care whether you abandoned it or not; but I would like to have you tell me the method that was adopted to compute that?

A. The general method—

Q. No, I want the method so that we can apply it and compute it?

A. I think that is a typographical error.

Q. Give us the method that was adopted to compute what should be here.

A. I mean by that general method—

Q. I mean something so that we can compute it; not glittering generalities—let us get down to brass tacks.

A. That is what I want to do. There must be a general method in anything of this sort. The attempt that was made and abandoned was to find the annual depreciation in the case of each item, by finding the total depreciation and then dividing it by the number of years which that depreciation existed or was computed. But in cases of obsolescence—I have marked one obsolete here—I used my own judgment as to what sum ought to be put in, because in the case of obsolescence the annual depreciation disappeared. I will endeavor to explain that to you.

Q. Can you without referring to your notes tell us how to compute it?

A. Not further than the general method.

Q. Did you make the computation yourself?

A. In this case I did.

2357 Q. As to each one of those things?

A. It was abandoned.

Q. As to each one of the items that go into the plant you made the computation on that theory?

A. You mean the computation as to the annual depreciation. I did not, because it was abandoned. Nobody made it.

Q. How recently was it that it was abandoned, when did you make these figures?

A. Within a couple of weeks.

Q. You can't tell us now what the theory was?

A. I just told you.

Q. You can't tell us any more specifically than you have?

A. I shan't go into the English language any further trying to explain it to you.

Q. You usually qualify as a statistician as well as these various other things?

A. Very rarely.

Q. But also as a statistician?

A. Sometimes people call me statistician.

Q. You qualify as a statistician, don't you?

A. I don't recall that I ever did.

Q. Now, you were sincere in making this computation for Mr. Brennan of the amount which you had to deduct from your 69½ cents as the cost of gas, if we eliminate those two items aggregating about \$15,000?

A. I did; I was taken by surprise.

Q. You thought you were doing it right?

A. Yes.

Q. There was an obvious error in your theory of computation, wasn't there?

2358 A. I don't know.

Q. In the theory of it wasn't there?

A. It was the elimination of \$15,000—

Q. You remember the transaction. You were sincere in making this computation for Mr. Brennan of the amount which you had to deduct from your 69½ cents as the cost of gas if we eliminated those two items aggregating \$15,000?

A. Why, of course?

Q. There was an obvious error in your theory, wasn't there?

A. Well, I was not aware there was; I don't think there was any theory connected with it.

Q. Your computation was based on some theory, wasn't it; tell us what the error was, I don't mean error in figures, I mean the underlying proposition you adopted in getting at that result?

A. You mean to tell me my figures are incorrect—I often slip up on the decimal.

Q. I am not splitting hair; I am getting at what underlies your computation; that was obviously wrong, wasn't it?

A. Certainly not.

Q. Your 69.33 was an average for five years?

A. Yes.

Q. You deducted this \$15,000 which only occurred one year from your average of five years, didn't you, and got a result five times as big as it ought to be in your deduction?

A. I think I can make that clear to you.

Q. Go on and answer the question, if you please.

A. I certainly did not get a result five times too big, but I would be very glad to explain it to you if you wish to know.

Q. You are still satisfied that your computation there was right and that this where you were dealing with the average five
2359 years and you took an expense of \$15,000 which only occurred in one year, it was proper to deduct it from the average instead of spread it over the five years?

A. If you reduce it to terms cents per thousand cubic feet of gas if my figures are numerically correct, I am satisfied I was entirely right.

Q. The record here shows that the cost for 1910 in cents per thousand cubic feet, the year in which this expenditure occurred, was 66 cents and a fraction, and this amounted to about three cents, and that would make it 63 cents and a fraction?

A. You are wrong there. The cost was 69 and a fraction.

Q. You added to that your 6 cents that you had after you got your average?

A. Yes.

Q. The cost shown here by the record was 66.47, which appears from one of the exhibits here, complainant's Exhibit 24, as the operating cost of the company for the year 1910; now if you had taken \$15,000 from that you would have reduced it three cents, roughly?

A. Yes.

Q. Would that have reduced your average for the five years three cents or one fifth of three cents?

A. I was asked about the price of gas—

Q. No, answer my question, please. Can't you answer that without referring to anything or making a computation?

A. No, because it is a catch question.

Q. It is a question that is plain and clear to you as a statistician?

A. It is.

Q. Will you answer it and tell us whether the reduction of the operating cost three cents for one year would reduce the
2360 average of five years operating costs, which includes this one, three cents or one-fifth of three cents?

A. I will as soon as I can look it up, the costs for those five years.

At this time an adjournment was taken until 1:30 p. m.

2361

1:30 P. M., WEDNESDAY, August 16, 1911.

WILLIAM D. MARKS being continued on cross-examination by N. T. Guernsey, Esq., testified as follows:

Q. Do you still think that the elimination of this item or these two items of about \$15,000 in 1910 would reduce the average cost of making distributing and measuring gas, etc., from 63.33 cents about three cents?

A. Referring to page 83 of the report I find using the cash cost only, that is 6 cents less than the 69.33 I find that for 1910 we are given 65.30 while I use as an average 63.33 preferring to use an average of five years as being more nearly accurate. I would reduce this cost for the year ending December 31, 1910, which is given at 65.3 by about three cents, to 62.3 cash cost but there is no question of one third of an error or one fifth being divided out.

Q. Now let me repeat my question. I ask you whether you still think that the elimination of this \$15,000 in the last year would reduce this average for the five years, 69.33 cents three cents. Now please answer that?

A. It will reduce it about three cents.

Q. You didn't make up these figures shown on your page 83 did you?

A. I did not. I obtained them from the city's accountants.

Q. Now take these figures that I will give you here that are in evidence Exhibit 24. You have taken on your page 83 the two months ending February 28th to begin with haven't you?

A. Yes, sir.

Q. Now taking figures over the same period that have been sworn to and are in evidence here at .7415 for that two months?

2362 A. Exhibit 24 two months, .7515 cents.

Q. Now for the twelve months ending February 28, 1907 which is your next period, take .6581. Then for the next succeeding twelve months .6401.

A. Ending February 29, 1908, is that?

Q. Yes. Then for the next twelve months .5961. For the next ten months ending December 31, 1909, which is the next period which you take as shown on this exhibit take .6256 and for the year ending December 31, 1910, take .6647 and tell us what the average is. Get at the average in the same way you got your average for the five years December 31, 1910?

A. I have not the data here to do that with.

Q. What do you want besides the figures?

A. The average for the year ending December 31, 1910—the total amount of sales for the five years preceding divided into the total amount of the operating expenses of those five years and is not the average of the averages above it.

Q. You took the total sales—well I can give you that from this same exhibit if you prefer to do that way?

A. If you give me the total sales for five years.

Q. For the two month period 59,059,182 cubic feet, the first two months' period. For the twelve months ending February 28, 1907, 38,892,656. for the twelve months ending February 29, 1898, 441,877,493. the next twelve months ending February 28, 1909, 465,970,133. For the ten months ending December 31, 1909, 404,244,022, for the twelve months ending December 31, 1910, 531,991,054. You want the total operating expense also as I understand.

A. If you please.

2363 A. For the first two months' period \$43,790.62. For the next twelve month period \$255,967.82. The next period \$282,801.70. The next period \$277,745.76. For the ten months' period ending December 31, 1909, \$252,914.90. For the twelve months' period ending December 31, 1910, \$353,600.42.

A. I obtained for the amount of sales 2,292,034,540 cubic feet but I find on referring to the bottom of page 84 that I have there 2,292,034,290 instead of 540. I don't know but what I may have made some mistake in taking down your figures.

Mr. GUERNSEY: We get 2,292,034,540.

Mr. BRENNAN: That is what I get.

Q. There are two people that agree with you, and I think you can accept that as O. K.

A. I obtained \$1,466,821.22 as the amount of the cash operating expenses for the period of five years.

Mr. GUERNSEY: That checks.

A. In order to shorten the division I have taken 2,292,035 thousands. Do you wish me to carry it to the decimal, I find I am so very close to 64 cents, I could make it——

Q. Call it 63.99, that is what our figures are. Now then Professor, will you deduct from your operating expenses of the last year these two items which amount to \$15,602 and tell us what this average is with those items deducted?

A. Using 531 millions?

Q. Use the same figures you had before except that you eliminate these items you eliminated in making your calculation this morning.

A. Dividing \$15,602 by 531,991 thousands it amounts to 2.93 cents deduction.

COURT: That is only for one year, he wants you to do it for the five years.

Q. I asked you to deduct the \$15,602 from the operating 2364 and then divide by your number of cubic feet.

A. Oh I never did such a thing.

Q. I didn't suppose you did because if you had you would not have testified the way you did this morning.

A. I think you misunderstood me.

Q. Will you please do that?

A. Acting as your computer I will.

Q. Acting as a witness. Deduct \$15,602?

A. Deducting \$15,602 from the total cash operating and then dividing by the total number of cubic feet of sales to get the average per cubic feet, I do this merely as your computer, I would not do such a thing as that.

Q. Well I inferred from what you said this morning you would not.

A. Subtracting \$15,602 from \$1,466,821.22 I obtain, \$1,451,219.22. What do you wish me to do with that?

Q. That is the gross operating for that five years' period less these two disputed items?

A. Yes, sir.

Q. Now will you divide that by the number of cubic feet of gas sold during that period, will that give you the average operating expenses per thousand of cubic feet with those two items omitted for that period?

A. Making that deduction and dividing by 2,292,035 thousands I obtain if I done it accurately 63.31 cents per thousand cubic feet.

Q. Now will you deduct that from your 63.99 and tell us what the difference in the average the deduction of those two items would make?

A. The difference between 63.99 and 63.31 is .68.

Q. .68 of a cent?

A. Of a cent.

2365 Q. Then that would be the difference in the average operating cost for the five years if those two items were eliminated instead of something over three cents?

A. Not if applied to one year. Correct if applied to five years as shown on page 84 of my report Exhibit 23.

COURT: What amount did you divide by 2,219,000?

A. Referring to page 84 of my report?

COURT: No, right there.

A. \$1,466,821.22 less \$15,602 gives me \$1,451,219.22. That operation is practically a duplicate of my report, page 84.

Q. Now asking the question over again and I hope for a direct answer the difference in the average operating costs for these five years that would be made by deducting these items amounting to \$15,602 is .68 of a cent per thousand, is it not?

Objected to for the reason that the question has already been answered and for the further reason that the question assumes that the witness has not given a correct answer to the former question.

A. Yes, sir.

Q. I notice Professor that on the outside of this report of yours that is marked Defendants' exhibit 23, you are referred to as Ph. B. C. E., consulting engineer and statistician. Was the word statistician put in there without your acquiescence or consent?

A. No.

Q. Then what did you mean by telling us this morning that you were not a statis-cian?

A. I told you I had not qualified as a statis-cian.

Q. And that you did not remember having ever qualified as a statis-cian.

A. I don't recall having qualified as a statis-cian. It is too indefinite.

2366 Q. What is?

A. The statis-cian part.

Q. Now passing that for a minute who made this blue print commencing your report?

A. The United Gas Improvement Company made the original drawing.

Q. Who copied it?

A. One of my assistants.

Q. How old is it?

A. Oh it is quite old. I don't know exactly, it was merely to elucidate the general appearance for the benefit of the Master.

Q. What is the size of the generator that is shown here?

A. Not stated.

Q. I know, but don't you know?

A. I do not.

Q. What did you do, take something you found in an advertisement and ask one of your assistants to copy it or trace it?

A. Yes, to trace it, never looked at it again.

Q. All you did was to put your name here William D. Marks, C. E.

A. Yes, sir.

Q. Now in your direct examination when you were called in the Consolidated case entitled William R. Wilcox and others, against

the Consolidated Gas Co. of New York, or the reverse, was this the first question asked you and is this your answer? "Q. You may tell us something about yourself, what your profession is. Ans. I am a consulting engineer and statistician, making a specialty of gas and electricity, I have had a good deal of experience more particularly in the direction of statistics of gas. I have attended all of the meetings in this hearing and also before the State Gas and Electricity Commission and listened to the testimony. I have spent a good deal of time in careful study of the reports of the legislative committee of the state of New York 1885 and '86 and report of the Stevens Commission in 1905?"

A. Yes, sir. I did not attach special importance—

Q. I did not ask you that, simply asked you if that is the question put to you?

A. I do not recall, I think though that is substantially correct as reported there.

Q. Now does this blue print returning to that, show correctly one of these machines as it is arranged today?

A. No, it only illustrates the general principle as the United Gas Improvement Co. tried to show it.

Q. What are the differences between this machine as shown in this blue print and say the ten foot six set over in the plant there?

A. I have not looked at that closely enough knowing it to be an advertisement.

Q. Will you kindly look at it and tell us?

A. In what way do you desire to have me differentiate?

Q. I am not an expert, I wish you would tell us the essential differences in your mind as a gas expert between the machines shown by this drawing and the ten foot six set over at the works.

A. Except in the matter of detail there is no essential difference.

Q. Take it in the drawing where do they begin the process of manufacture?

A. Well usually where you put the coke in. On top of the generator.

Q. Where do you begin unusually?

A. I don't know.

Q. Then what do you mean, this is a pleasantry?

A. No, not a pleasantry, that is the way I noticed them doing here.

Q. They always begin there don't they?

2368 A. Yes, sir.

Q. That is at the left hand side as we look at this?

A. Yes, sir.

Q. Now is the apparatus set up here in the diagram in the order in which it appears over there?

A. That I don't know.

Q. Is it set up here in the order in which it is usually set up and used?

A. Yes, sir.

Q. You are certain about that?

A. Oh yes.

Q. Do they ordinarily run the gas through the condenser before it goes to the scrubber?

A. No.

Q. This shows the condenser before the scrubber don't it?

A. I see it is here now. It was a drawing I told you made by my assistant, I paid no attention to it.

Q. That is wrong isn't it?

A. Not necessarily no. If you have a multitubular condenser.

Q. What is the function of a condenser?

A. A condenser is to condense to *coll* the gas.

Q. Is that done before you put the gas through the scrubber?

A. It is generally done before in the case of coal gas.

Q. Well how about water gas, this is not a coal gas apparatus is it?

A. No, this is a water gas apparatus. I don't know how you do it, I don't know — which you put it.

Q. How is it usually done in a water gas apparatus?

A. If I used my way I would always condense before putting it through the scrubber.

Q. I didn't ask you that, I asked you how it was ordinarily done?

A. I told you I didn't know how you did it.

2369 Q. I asked you how it was usually done in a water gas apparatus ?

A. I am not connected with the U. G. I. in any way and they are the only people that do it, I can't tell you what they usually do.

Q. Do you mean to say you don't know how that is done with water gas?

A. By the U. G. I., I don't.

Q. I asked you how it was usually done in the operation of a water gas apparatus?

A. If you want to know how I would do it, I would use the condenser first.

COURT: He asked you if you knew how it was usually done?

A. I don't know how it is usually done if you put it that way, by the United Gas Improvement Co.

Q. I didn't ask you that. I want to know if you know how it is usually done leaving the United Gas Improvement Company out of consideration?

A. As the U. G. I. is the only one organization practically that is practically all I have to say about the matter.

Q. I would like to have an answer to the question.

A. My answer to that is it is impossible because *because* the U. G. I. control most all there is.

Q. That is not my question. My question is whether usually in the operation of these machines gas goes through the condenser before it goes through the scrubber?

A. In the case of coal gas, yes always.

Q. Do they make coal gas with these machines?

A. No.

Q. Then read the question to the witness?

A. I have answered yo-r question as far as it is possible to answer.

COURT: If you answer the questions promptly we will get along better and faster.

2370 A. It is this way, the U. G. I. are the only people that make these and I said I don't know how they arrange that scrubber and condenser therefore when I say that I have covered the question as far as I am able.

COURT: If you don't know what theu usually do then just say so.

Mr. BYERS: I submit he has said that twice.

A. I can't answer you any more than I have answered you, it is out of the question.

Q. Now what proportion of gas in this country is made by water gas apparatus?

A. I don't know.

Q. Is it about 75 per cent of the gas used in this country made with water gas apparatus?

A. I don't know.

Q. You would not say that was wrong?

A. I simply say I don't know.

Q. As a gas expert you don't know under these circumstances whether it is usual to run gas first through a condenser or first through the scrubber with this water gas apparatus?

A. I have already stated that I don't know what the United Gas Improvement Company does it as much as I can say. I have also added to that that I would myself use the condenser first. That is as much as I can say with regard to that multitubular.

Q. Is the United Gas Improvement Company the only concern in the United States that manufactures Water gas apparatus and sells it on the market?

A. The only noticeable concern that manufactures.

Q. Who else manufactures and sells it?

A. There is a firm in Toronto, Canada.

2371 Q. I asked about the United States?

A. That is about the only one I know of.

Q. How about the Western Gas Construction Co. of Ft. Wayne?

A. I have read their advertisements, I have never seen any of their apparatus.

Q. How long have they been in the business of manufacturing this water gas apparatus?

A. I don't know.

Q. How about the Gas Machinery of Cleveland, do they manufacture and sell this water gas apparatus?

A. I never have seen any of their apparatus, I have seen their advertisements.

Q. Do you know whether they manufacture and sell it, that is what I am asking you?

A. All I know if that they advertise.

Q. That they manufacture and sell it. Does the gas engineer Co. of Trenton, N. J., advertise gas apparatus of this kind?

A. The first I ever heard of this concern.

Q. Does the American Construction Co. of Newton, Iowa, manufacture and sell such apparatus?

A. The first time I ever heard of the concern.

Q. Now can you tell us any gas plant in the United States using water gas apparatus which follows what you say you would do and pass the gas through the condenser before it goes through the scrubber?

A. I never have looked into it.

Q. You said I believe that you went to St. Louis in 1871?

A. In 1872.

Q. You were there how long?

A. Fifteen to eighteen months.

Q. You did not design that plant?

2372 A. William Farmer did so.

Q. You kept the books for the construction company?

A. For the contractors.

Q. That were constructing the plant?

A. Were building the plant.

Q. And you also inspected the work to see that Mr. Farmer's designs were carried out?

A. I followed every contract as to the materials and the correctness with the drawings that Mr. Farmer furnished.

Q. So that your business there was to keep the books and act as sort of an inspector?

A. I should think that was about it.

Q. Now when did you next have something to do with the construction of a gas plant?

A. Do you mean to say with the design or with the looking after fixing up?

Q. Either one.

A. It must have been about 1900.

Q. About thirty years?

A. Just about 1900.

Q. And what plant was that?

A. That was a small plant at Fostoria, Ohio, that was partly completed. I was sent out to get it to going. Part coal and part water gas.

Q. That plant had been designed by somebody else as I understand?

A. The United Gas Improvement Company as far as the gas was concerned.

Q. Now far had the work of constructing the gas plant and laying mains progressed when you went there?

A. The water gas plant was partially completed and had been in operation. The coal gas plant the benches had to be rebuilt.

2373 Q. Then the water gas apparatus had been installed and the coal gas benches had been built but the coal gas benches you rebuilt?

A. Yes, sir.

Q. Now how much had been done in the way of laying mains when you went there?

A. A good many of the mains, I think almost all of them were completed at that time. It is a small job, I think some more work was done. I know I recall opening—going to ditcher there that were open and opening ditches. It was in the hands of a local boss who knew everybody and everything and he did most of the location.

Q. What was the total number of miles of mains in this plant?

A. It was not much, not many. I have not the faintest recollection.

Q. Let's see if I can refresh your recollection, wasn't it about eight.

A. It certainly was not more than eight or ten miles, I know it was a small place.

Q. Most of the mains had been laid prior to your going there?

A. They were finishing up the job when I got there in all directions.

Q. They were making gas when you got there.

A. Yes, sir.

Q. Selling gas?

A. Yes, sir.

Q. How long did you stay on that job?

A. Off and on I should say about a year getting it to going and arranging operations there.

Q. How much of your time did you spend there?

A. A year. I should think about half my time. I had three or four other things to look after.

Q. It took about six months to get this plant with about — miles of main going after they had commenced making gas?

A. Oh no, it was going when I got there.

2374 Q. I am just quoting your language, you said to get it going and straighten things out that took about a year.

A. No, it was not the gas plant altogether. There was an electric plant. They had consolidated the electric plant with it and the street arc lighting system the lamps had to be all fixed over beginning the street arc lighting system, I think took the bulk of my attention.

Q. So you paid comparatively little attention then to the gas plant there.

A. Well I had to pay most attention to the electric I suppose. I remember they told me to divide the expense half and half between the electric and the gas so I suppose they believed I did about half of each.

Q. Now what additional experience have you had in connection with the construction or designing of gas plants?

A. The next thing that came up was the Durham North Carolina gas plant.

Q. When was that?

A. That was along I think in 1903 or '4, I don't recollect which. I know it was just before I went to New York. That was a town of about 22,000 inhabitants.

Q. How many white inhabitants

A. I think we figured there was about 7,000 niggers there, I don't know, out of 22,000.

Q. How many miles of mains were there there?

A. I have not any recollection of that. I recall at the outset making a requisition for about five or six miles of mains.

Q. About twelve miles altogether weren't there?

A. Not at the start.

Q. I didn't say at the start, altogether about twelve miles
2375 of of mains in that system.

A. Now.

Q. No, when you built it?

A. I don't think so, I don't think it could be that much.

Q. How high did it go?

A. I told you about five or six miles.

Q. Aside from your experience in St. Louis and Fostoria and Durham you have mentioned, have you had any experience in the construction of a gas plant?

A. You mean as engineer?

Q. Yes, or any other way what have you had to do with building a gas plant, I don't care whether it is as engineer or as contractor or as laborer.

A. I have had no experience in the actual building of anything more than these three plants, but in the estimating for others I have had a great deal of experience.

MR. GUERNSEY: I move to strike out the last part of the answer, I didn't ask the witness for that.

Q. Now what experience have you had in designing gas plants
than with reference to the three plants that
have been referred to during the entire forty years?

A. I have originated none whatever.

Q. Did you design the plant at St. Louis, you did not I understand?

A. I said I had originated none whatever.

Q. You did not even design the plant at Durham?

A. Yes, but it was a little bit of a coal gas plant and no engineer that regards a matter of any great importance.

Q. Now aside from your experience in Ohio, that was at Fostoria wasn't it?

A. Yes, sir.

2376 Q. Did you ever operate a gas plant after you left St. Louis or have anything to do with its operation?

A. Except at Durham. I never have stayed at a gas plant any longer than to complete its building and get it into operation. I have always been—I would not stay at any plant after built and going.

Q. The thing I want to get at is what you actually did, not what you would have done. So as a matter of fact you have had practically no experience in designing constructing or operating gas plants?

A. I should deny that entirely.

Q. Do you say you have had a broad experience in designing, constructing or operating gas plants?

A. No, I should not call it broad experience in the actual creation of plants.

Q. In what line whether designing, construction or operating gas plants has your experience been broad?

A. More in estimating.

Q. I didn't ask you that.

A. Yes, that is part of designing of a plant always and I have been used for years beginning in 1876 on that particular point in connection with gas works by men largely engaged in the operation of the old fashioned coal gas works.

Q. Who were they?

A. The principal man, that is the one who put most money in was Seymour L. Husted of Brooklyn, Henry Atrell of Baltimore, Suter & Company of New York, Arthur W. Benson, President of the Brooklyn Gas Light Company and a number of others who I never came in contact with whose money they had to handle.

Q. When was the last year you did anything for any of these people?

2377 A. In 1887.

Q. Twenty four years ago?

A. Yes, sir.

Q. At that time how far had the actual operation of water gas plants been developed?

A. It was just beginning.

Q. Have you had any experience whatever in the operation of water gas plants personally?

A. At the beginning of the water gas business.

Q. I asked about experience in the operation of plants.

A. Yes, sir.

Q. Where was the plant located?

A. The first plant was Prof. Lowe's plant the originator of this business at Manayunk, outside of Philadelphia, his experimental plant.

Q. How many miles of main did they have there?

A. None whatever that I know of. It was his experimental plant set up for the purpose of introducing the water gas process.

Q. Now then what plants in actual operation have you ever been connected with, water gas plants, I don't mean simply experimental stations but plants that were actually operating.

A. I told you one in Fostoria during operation.

Q. How much did it cost you per thousand to make gas there?

A. If I remember rightly the best they could do was 65 cents in very large quantities although they had agreed to sell it at 50 cents.

Q. This is water gas or coal gas?

A. Water gas.

Q. What did they pay for oil then?

A. About 4 cents if I remember rightly. That was gas
2378 oil you know a distillate.

COURT: Natural oil as produced right there?

A. They were not allowed to use the natural oil.

COURT: It is produced there?

A. It is produced right around there but they were not allowed to use the natural oil, the cheap oil, they had to use a distillate.

Q. Do you know why it was they used this distillate at that time?

A. Because the oil well people didn't dare to sell them natural oil.

Q. As a matter of fact the reason was, wasn't it that the apparatus at that time was not adapted to the use of the crude oil?

A. It could use crude oil.

Q. Where was it used in the apparatus at that time?

A. In the carburetter.

Q. At what place, what city or what gas works?

A. They were using it at a little town just east of them.

Q. What is the name of the town?

A. I forgot the name of the town.

Q. Anywhere else as far as you know?

A. I didn't look for it anywhere else.

Q. I didn't ask you that.

A. I don't know.

Q. You don't know of any other place?

A. No.

Q. Are you an expert in the manufacture of water gas?

A. Do you mean by that have I practical- personally operated?

Q. No you have said you had not, but I want to know whether you know how to operate and can operate a works.

A. I had to operate them for many days in Fostoria, Ohio.

Q. I didn't ask you that.

A. I do.

Q. Are you now competent to take hold of and operate
2379 a water gas plant?

A. That is a very broad question, I should feel perfectly competent with a little indulgence for what possibly might be awkwardness the first week or two.

Q. Now then what temperatures do you use in your generators?

A. You judge of those by the eye.

Q. I didn't ask you that^m what temperatures do you use?

A. Oh I could not give them to you.

Q. Between what extreme may the temperature vary for efficient results?

A. Well as near as I could tell you by sighting through the sight hole it would have to be a white almost liquid looking heat that is acquired in the disassociation of steam in contact with incandescent carbon.

Q. I didn't ask you that. I asked you between what limits of temperature in the generator may vary and still give you efficient results in manufacturing?

A. That has all been worked out, I can't recall it at the present moment. The data is all given in most of the—

Q. I know, but do you know yourself?

A. I have not sufficient memory to recall these things.

Q. At what pressure do you put blast into a ten foot six generator what is the air pressure there?

A. Be very difficult to say, you would have to put it in until you got the result of getting the gas through and that is a thing you could see. Depend on the depth of your fire.

Q. Do you know what limits the pressure varies in actual operation?

A. I don't know now, I can't recall.

Q. Did you ever know?

A. Yes, sir.

Q. Read it in a book somewhere?

2380 A. No, had to hunt it up by actual practice.

Q. That was how long ago?

A. A long time ago, I should say eight or ten years ago.

Q. What is the difference between the pressure you used with your blast in an eight foot six set and a ten foot six set?

A. The largest set I ever operated was I think a six or six and a half foot set and I don't even recall what the pressure was there. Although we had it on the *guage* and marked with a string.

Q. What steps would you take if you were operating one of these sets to determine whether the pressure was too high or too low or right?

A. I would ask the United Gas Improvement Co. to send one of their regular operators, a man probably of no scientific acquirement at all but used and accustomed to handling these various plants and withn it their instructions how to do this, just what every one of them does when they start a plant up, rely on the guarantee of the United Gas Improvement Co.

Q. You would not rely on your own knowledge as a nexpert in the business?

A. That is out of the question.

Q. Now then did you ever buy a water gas set?

A. Personally?

Q. I don't mean for your own use, but did you ever make a purchase of any for anybody?

A. I settled for a purchase which was made by other parties in Fostoria, Ohio.

Q. That is your obly experience along that line?

A. The only time I ever had any cash dealings with the United Gas Improvement Co.

Q. Have you bought any cast iron pipe for gas mains within the last ten years.

2381 A. Yes, I bought a lot at Durham, North Carolina.

Q. That is where you had about five miles?

A. Five or six or seven.

Q. That is all you ever bought in your life isn't it as far as you can remember?

A. No, I had a great deal to do with the contracts that were made in St. Louis and there was a very large amount went in there if I remember rightly. That is a long time back.

Q. Did you negotiate these contracts?

A. That would be very difficult to say because the whole matter was put through me as a resident there and decided finally by the

contractors in conclave. The average man would tell you he did it all. I will tell you frankly what I did was to get everything going and they finally made up their minds what they would do and told me to go and do it.

Q. Have you laid any gas mains since you were at Durham?

A. Not that I can recall.

Q. Have you bought any meters since you were in Durham?

A. No.

Q. Have you bought any gas apparatus of any kind since you were in Durham?

A. I have not.

Q. Do you remember definitely when it was you were in Durham, when you finished there?

A. I could not tell without referring to papers but I know it has been since 1900.

Q. Now you said you were employed in the Wilcox case in New York as technical expert in gas matters more particularly appraising and accounts so far as operating expenses were concerned.

2382 Did you make an appraisal in the Wilcox case of the property of the company?

A. Yes, sir.

Q. Did you testify in the Wilcox case you were not permitted by the company to examine its property?

A. Yes, sir.

Q. That was correct of course.

A. Yes, sir.

Q. Did you ever examine its property?

A. Yes, sir.

Q. Without the company's permission then?

A. By special order of the court.

Q. Now then was an inventory made of that property?

A. I was the only one that made a written inventory.

Q. Was there a detailed inventory made of that property?

A. The company stated—

Q. I didn't ask you that.

A. Yes. I was the only one that made a detailed inventory.

Q. You did make a detailed inventory?

A. Yes, sir.

Q. Have you a copy of that inventory?

A. Yes, sir.

Q. Will you let us see it?

A. I have it among my papers at the hotel, I will be glad to bring it around.

Q. In that did you take the property up item by item to get at either its original cost or the cost to reproduce it in that valuation?

A. I endeavored to do so.

Q. And made a report at that time?

2383 A. Made a report at that time.

Q. You have a copy of that I suppose with you?

A. Yes, sir.

Q. You will let us see that?

A. Yes, sir.

Q. Now then in Buffalo you said you were called upon to appraise the gas works. Was there an inventory taken there?

A. By myself, yes.

Q. How much time did you put in in Buffalo in making this appraisal, in making the inventory?

A. Something in the neighborhood I think of two months.

Q. About two months?

A. Yes, I can't recall that, I would like to leave that open if you would like to have it exactly.

Q. Was there a detailed inventory made there such as has been made here either by you or anybody else?

A. You mean before I got there?

Q. No, in connection with that hearing.

A. I don't recall anybody else making a detailed inventory except myself.

Q. Was that inventory introduced in evidence?

A. I think not. It was used merely as far as results was concerned.

Q. It was not produced on the trial was it?

A. I think not.

Q. And there was no testimony there as to any detailed valuation of buildings and things of that kind?

A. Yes, there was considerable testimony.

Q. As to details there?

A. As to details of buildings.

2384 Q. Now in Jersey City did you make an inventory, you say "was called upon to appraise gas works there"? Did you make an inventory there?

A. There I made an appraisal for the purpose of taxation, going around and getting the various buildings, locating them and using the standard units of quantity and working it out in that way, but not going into details as for instance I have gone here.

Q. Was there an inventory made there?

A. You mean by me?

Q. Anybody?

A. Well of course I can't tell outside of myself.

Q. Was there one made to your knowledge?

A. I saw nothing of the sort.

Q. How long were you appraising this plant at Jersey City?

A. I spent about three or four days.

Q. And what was the size of the plant, how many miles of mains or what was the capacity?

A. I could not recollect that, I can dig it up if you like. It was up in the hundreds of miles.

Q. A larger plant than this one here?

A. Even that I can't recall on the spur of the moment I should think it was considerably larger.

Q. So it would have been impossible to have made a detailed inventory in three or four days?

A. Yes, sir.

Q. Now in the Buffalo case that was a hearing before a commission wasn't it?

A. Before the old and extinct gas commission of the state of New York.

Q. You appeared for the city?

2385 A. Yes, sir.

Q. The New Jersey case was a hearing before the Tax Commission?

A. Yes, sir.

Q. There was a question as to valuation of the plant for purposes of taxation?

A. Yes, sir.

Q. Also appeared for the city?

A. For the Mayor of the city. He had a German name, I have forgotten that too.

Q. Now you say an appraisalment was made in Cleveland?

A. Yes, sir.

Q. Was that a detailed appraisalment such as has been made here, was there an inventory such as here?

A. A much more detailed appraisalment so far as I was concerned than I found it necessary to make here.

Q. That don't answer my question exactly. Was there an inventory prepared in detail showing the plant as prepared here?

A. Not only an inventory such — we have here, but complete drawings of the plant and all plans were made by myself and my assistant.

Q. You made the inventory there?

A. Yes, sir.

Q. Was it as complete as the inventory we have here?

A. So far as drawings are concerned it was much more complete.

Q. Then you don't criticize this inventory as too complete?

A. I admire it very much for its extraordinary completeness.

Q. Then this Bronx case, gas and electric works, was there a detailed appraisalment made there?

A. If I remember rightly there was a d-tailed appraisalment given in the form of evidence before the street opening board, I don't know whether that is the proper name for it or not, but at
2386 any rate it was the men who had the right to assess damages resulting from opening streets through property and I gave a detailed estimate there, the time occupied, if I remember rightly was a couple of months or more.

Q. There you also appeared for the city?

A. For the corporation counsel. It is difficult to say who I was appearing for.

Q. Who do you mean by corporation counsel?

A. Of the City of New York.

Q. In Cleveland did you appear for the city?

A. For the gas committee of the city council.

Q. Now in Minneapolis, was there a detailed appraisalment made?

A. There was not.

Q. There you appeared for the city?

A. There I appeared for the city council.

Q. Does that cover the appraisals that you referred to on your direct examination?

A. Let's see, New York 11, Buffalo 4, Cleveland 3, Jersey City—yes I may have forgotten some, but I think that is all.

Q. There is one thing I want to get straightened out about your report Complainant's Exhibit 23, is that supposed to show the reproduction cost of the plant or not?

A. No.

Q. Is it supposed to show the original cost of the plant?

A. It is supposed to show—

Q. No please answer my question is it supposed to show the original cost of the plant?

A. Kindly before I answer that question explain to me what you mean by the original.

Q. The dollars actually spent in the plant.

A. The real money put into the plant, is that it?

2387 Q. Whether it was real or counterfeit, whatever was put in?

A. Yes, sir.

Q. Then it is not intended to show the value of the plant at this time is it?

A. At what time?

Q. This time.

A. Today?

Q. Yes.

A. Only in so far as the cost of the materials and labor correspond with the cost of materials and labor used in gas works at the time in which these structures were put in.

Q. You recognize a difference between cost and value do you not?

A. Very decidedly.

Q. And your report is intended to show the original cost of this plant?

A. Yes, sir. You forget and also the present value.

Q. How did you arrive at the present value in your report?

A. By a process of residual depreciation.

Q. Can you say it short, by deducting from what you call original cost what you estimate to be the depreciation?

A. The residual depreciation.

Q. So your definition of value is original cost less what you have termed residual depreciation?

A. Yes, sir.

Q. And so is that the sense in which you use the word value in your report and in your testimony?

A. The present value I mean by that. May I make a correction. Referring to the \$147 on the bottom of page 14 it was a typographical error. It has no meaning whatever, was not used at all or referred to again. The whole matter touched upon here was
2388 treated by an entirely different method and is finally, *is* shown on page 80 under the head of residual depreciation for one year, computed for one year, life of works forty years.

Court: I simply asked you that so I would understand the way

you had figured. It is perfectly evident to my mind that \$147 was a mistake. By the bye, if I understand you, you allowed two per cent or figured two per cent as to depreciation of buildings and works both, is that correct?

A. On page 80.

COURT: No, generally is that true or not?

A. That is approximately true. In depreciation of these buildings I used something that I learned in Cleveland for the first time, the Summers' system of depreciation.

COURT: All I want to know is your rate.

A. The rate in the Summers' system, the depreciation, the rate per year grows less as the building grows older. It is not a uniform two per cent rate. This Summer's system is adopted in Cleveland and also in part in New York City and a great many other cities have taken it up.

Q. Now the first thing that was called to your attention seems to be this matter of the quantity of brick. Of course these quantities, Professor, were something that any engineer with any experience could figure from the plans were they not?

A. If you will change that word to knowledge I will say yes.

Q. And the number of brick that is ordinarily taken for purposes of estimates in a cubic foot or in a square foot is a matter of common knowledge among engineers isn't it?

A. For estimates it is a matter of you might say common custom.

Q. So that there was nothing in the statements in the inventory assuming that they were erroneous that could have misled a 2389 competent man.

A. They are very misleading.

Q. That is a competent man accustomed to making estimates on brick work would be misled by the erroneous statement as to the number of brick per cubic foot for instance?

A. Unless very careful.

Q. He would not know how many brick ought to be figured per cubic foot if he was accustomed to making estimates?

A. For estimates I have stated the figures used are customary. But I wish to emphasize the word "estimates."

Q. And what are estimates.

A. The preliminary computations before a building comes into existence while it is not yet a concrete fact and exists only in the imagination of the engineer who is designing it.

Q. So that if a person were estimating what it would cost to reproduce this plant, to build an imaginary hypothetical plant, these figures would be proper figures to use wouldn't they?

A. To provide ample margin, yes.

Q. Now then what figures did you take?

A. The figures based on the actual facts.

Q. Now what provision did you make for brick that would be broken in hauling and things like that?

A. The grade of this work is such that it could all be used.

Q. So that you assumed that there would be no waste whatever in the brick that would *would* measure up the wall and pay for simply the brick that were in the wall and have no waste and no excess.

A. I assumed it being a fact that there are sixteen brick as shown by the first exhibit which I made in a cubic foot that if I take 18 foot to a cubic foot or seventeen and a half brick to a cubic foot that

I was making an allowance of from one and a half to two 2390 bricks throughout the brick work for the purpose of taking care of just such matters as you could not very well avoid and also I have known a bricklayer in that sort of work to be reported to put in three thousand bricks, spalls and bats in one day.

Q. I know you told us that this morning, I didn't ask you about it, you testified to that on your direct this morning. Who built this exhibit for you out of these brick?

A. An unknown gentleman residing in Des Moines, a bricklayer, I don't know his name.

Q. Did you employ him?

A. I did not.

Q. Who did?

A. I think Mr. Dobson.

Q. Who is Mr. Dobson?

A. Mr. Dobson is ex-city engineer of the city of Des Moines and has very kindly assisted with such information and assistance as he could give.

Q. Has he been employed by you or the city in this matter?

A. I don't know, but I think he is in the city's pay now. I know that he has been city engineer.

Q. He is one of the people to whom you went for information you said I believe as to some of your unit prices.

A. Yes, sir.

Q. Now to get this a little more in the concrete, I want to turn to one of these buildings. We will take the first one, I see quite a radical difference between you and our people and I would like to find out where it is?

A. What page please?

Q. Page 18 of the inventory. Now what did you allow for the excavations there?

A. 189 cubic yards at 35 cents.

2391 Q. What did you allow for clearing site and staking out?

A. Nothing.

Q. Now then the foundation there is concrete I believe?

A. So stated.

Q. Well did you estimate it on that theory?

A. Yes, sir.

Q. What mixture.

A. One, three, five. When I say 1-3-5 I mean one barrel of cement, three barrels of sand and five barrels of broken stone about two to two and a half inches in its largest dimensions.

Q. What price did you take for cement?

A. I don't recall what I took the cement at, I estimated it at \$7.00 a cubic yard in place.

Q. How did you get \$7.00?

A. By taking cement and stone and sand and working it up and the labor.

Q. What is cement worth here?

A. I don't recall that for the simple reason I relied on Mr. Dodson's statement at the time and with the interminable mass of figures I have had I can't recall every one of a thousand details.

Q. What is cement worth in Buffalo?

A. I could not hazard a guess now, I can get a paper at any time to tell me.

Q. I want to know if you had any knowledge except what anybody might have acquired?

A. No.

Q. Do you know anything about what cement has been selling for in Des Moines the last year or two?

A. I did know a week or two ago, but I have thoroughly
2392 forgotten it among the mass of materials I have been working on since.

Q. Have you the figures from which you figured out the \$7.00?

A. I have figures somewhere but would have to dig it up again.

Q. Haven't you the book in which you make estimates?

A. Right here is the book and I say I estimated \$7.00.

Q. What you have there is a copy of the inventory?

A. No, the inventory don't say \$7.00.

Q. What you have before you there purports to be a copy of Exhibit 15 with some of your figures put on it?

A. It is.

Q. Where did you do your figuring by which you got your \$7.00?

A. I did my figuring on a stray bit of paper in consultation with Mr. Dobson as to the cost of cement and stone and sand and I will do it again if you will give me time to hunt up the prices if you like?

Q. I would rather rely on what you know than what somebody else tells you. So you haven't kept the figures on which you based the computation?

A. The \$7.00, no.

Q. Can you tell us what you put broken stone at?

A. No. As I say I will have to work it up again if you want it.

Q. Can you tell us what you put sand at?

A. Have to work that up again.

Q. Can you tell us what you put labor at?

A. Have to work the whole thing up.

Q. Do you know whether you made an allowance for tools or not?

A. Made an allowance for everything.

Q. Do you know whether you made an allowance for tools or not?

A. Yes, sir.

Q. How much?

2393 A. I don't recollect.

Q. Can you tell us what would be a reasonable allowance for tools?

A. I can't now.

Q. Can you tell us what is a reasonable allowance for labor?

A. I can't now. I will work it up for you.

Q. Can you tell us what would be a reasonable allowance for stone per cubic yard, I mean?

A. I can't now.

Q. Can you tell what would be a reasonable allowance for any item going into a cubic yard of concrete in this foundation in place?

A. I can't at this moment.

Q. Did you get all your information about this subject from Mr. Dobson one of the city's engineers?

A. As to prices, yes.

Q. How much did you make that foundation at \$7.00 a yard?

A. \$266 at \$7.00.

Q. Now then what did you put in for forms?

A. That \$7.00 included forms.

Q. How much did you allow for forms?

A. I can't tell you now. I will get you the whole figure.

Q. I don't care for the figures unless I can have the originals. What is an ordinary allowance for forms per cubic yard for concrete work in Des Moines?

A. Depends on the size and volume of the concrete work in contemplation.

Q. Take foundations. What is the proper allowance?

A. Even that would be a guess.

Q. What would be the proper allowance in the case of this building?

A. I will have to go into details on that again by hunting up my papers, I have the allowance.

2394 Q. What is the maximum amount that would be a proper allowance for forms for concrete work in a foundation in Des Moines?

A. Oh you are going into—you are verging on the infinite a question like that, because there is an infinite variety and detail of conditions in which forms might be used. It is quite possible that they would drop and I am quite sure I would drop rough concrete in a foundation into a ditch with a few loose boards along side and sticks simply to hold it in place until it set. The work and the value of what is called the forms or moulds here would be next to nothing for these boards could be used again and again pulled out and it is done that way all the time.

Q. Is that as close as you can come to an answer to the question?

A. At present unless you will specify.

Q. Take ordinary foundation work where you have excavated for a cellar how much would you allow per cubic yard for forms for concrete foundation?

A. You mean for forms for what, for the walls?

Q. Forms for the concrete foundation under those circumstances.

A. Do you mean a foundation that just comes—take this build-

ing right out here just north of the gas works, they are excavating there I can tell you just what would be done over there. The footings as they are called, in the ditch that goes around the cellar these footings are pitched in loose in concrete and hammered home.

Q. Is that as close as you can get to answering the question?

A. If you want to make foundation walls you might want to build them of rub-le stone or might want to build of brick or might want to build of concrete in which case you would have to make what you call forms. That form is a board fence of the cheapest and rudest description.

2395 Q. Does one inch stuff hold concrete very well, usually one inch stuff where you have a heavy concrete wall?

A. In a case of that sort it is a question of your studding and not of your boards.

Q. You spoks of a stick occasionally?

A. Oh no. I am speaking now about going on up. I was speaking formerly of the occasional stick at the bottom of this trench around. Now that is very cheap work and the cost depends upon how often you use these boards and uprights, the studding and bracing that goes with it.

Q. Is that as closely as you can tell us?

A. Oh yes, I can generalize about it.

Q. Did you ever figure what it would cost for forms in a concrete job in your life?

A. Yes, sir.

Q. What job was it?

A. It was a job of building.

Q. Where?

A. It was a job of a building conceived by Thomas A. Edison, the inventor.

Q. Where was it and when?

A. It was when I was located in Philadelphia and when the matter was brought up of building houses and the question of—

— What year was it, can you tell us what year?

A. All I could tell you it was anterior to the end of 1905 and I know the cost was very great for building complete houses just as I told you that the cost would be very small for foundations.

Q. Did you ever figure it in any other specific case except the one you have mentioned?

A. Not carefully. I would not do it in most cases.

2396 Q. So you can't give us any idea of what would be the reasonable amount to put in?

A. To a definite statement, yes.

Q. To this specific proposition?

A. That I will work up if you wish it.

Q. I want you to give it basing it on your general knowledge that my friend referred to so often this morning. What would be the proper allowance on account of forms in that \$7.00 if you know.

A. Usually for the purpose of foundations 38 cubic yards if you ask me of my general knowledge I will tell you nothing at all for if I had the foundations to put in I would not think of such

a thing as bothering with boards, throw that in loose, have the ditch dug properly and filled.

Q. How high above the ground does the foundation grow?

A. I think four or five feet above the ground, a mere box on the top made out of two inch stuff and moved up after it was put in there. That is the practical way to get at it.

Q. This same foundation would be dug in the ground you referred to this morning as sand, so sandy that the sand would not cost you anything?

A. I didn't say anything of that sort.

Q. Then I misunderstood you when I understood you to say this morning that all over this territory was sand so they could — sand out of the excavation and would not have to buy any?

A. No, I told you sand was very cheap.

Q. You referred to this ground here as sandy ground?

A. This is not the place. This is the part around the edges of the river.

Q. And this building is on the west side of the property isn't it that we are talking about?

A. Well don't you mean the river and not the property?

2397 Q. No it is on the east side of the river and it is on the west of Block C I think is the block?

A. This is close to the river?

Q. Well now then let's go on and see what you know about the next item. There are brick foundations here. How many brick did you take for the foundation?

A. 3,370 brick in the place of 3,990 brick.

Q. Well you knew didn't you that we afterwards corrected that 3,990 to 3,056 so you run about 325 over us or haven't you been advised of that?

A. You have not so advised me. I wondered if you would catch on.

Q. You take 3370 brick?

A. Yes, sir.

Q. Now what price did you put on the brick delivered?

A. \$16.00.

Q. On the brick delivered?

A. On the brick laid.

Q. I didn't ask you that, what price do you put on the brick delivered?

A. On the average of what would be about \$8.00.

Q. You mean all through the entire job, or all through this building.

A. Be through the entire job.

Q. You put this brick at \$8.00 delivered?

A. Yes, \$8.00.

Q. \$8.00 a thousand?

A. I beg your pardon I assumed they were, that the brick probably cost considerably less, mud brick, but I let it go at that.

Q. Who told you about the price of mud brick, Mr. Dobson?

A. Mr. Dobson. Had a great deal to say about it too.

Q. I know all about it because Mr. Dobson is fortunate
2398 to be an aggressive young man, he is for his side. I am not
criticising him for it. Did you ask anybody else about the
price of this mud brick?

A. It was said in the presence of the gentleman whose name I am
continually forgetting. I think it is Wheeler you said isn't it, the
contractor, down here?

Q. He you said was a non-resident?

A. Non-resident, yes impartial in his views I think too.

Q. Who took you down to see him by the way?

A. Mr. Dobson.

Q. This contractor is now working on a job for the city?

A. Yes, sir.

Q. Did you see anybody else?

A. I saw Mr. King who dug up the streets of this town somewhat.

Q. By that you mean George King?

A. I think the name is George.

Q. Used to be a member of the council?

A. Oh, I don't know.

Q. Is he now engaged in any city work?

A. I don't know.

Q. Mr. Dobson also took you to see him?

A. No, I met him through somebody else, I think either the cor-
poration council or city solicitor, one or the other introduced me.

Q. You figure this brick at \$16.00 in the wall?

A. Yes, sir.

Q. That gave you what?

A. \$53.92.

Q. How much of that \$16.00 was labor?

A. Figure it this way, \$8.00 for brick, \$4.00 for labor in laying
a thousand of brick in a common factory style of work or founda-
tion used here, a dollar for lime and sand, \$3.00 for a con-
2399 tractor's profit and if a scaffolding appears to be necessary an
allowance for a dollar for that and for a pilaster or bridging
work across a wall, \$1.50 per thousand for that. That will give you
the way in which I worked out the brick work.

Q. How much do brick layers get an hour?

A. 70 cents an hour. At least that is what the bricklayer's union
claim. I fancy there are a good many contracts below that price.

Q. What makes you fancy that?

A. Just a hint that was dropped to me by the man that gave me
the figures that they did not all stick to rates.

Q. So about five hours and a half you have allowed for laying a
thousand brick?

A. I have figured very low on the brick work for the class of work
that is here, I have put it about 1400 brick a day, a thousand to
1400 brick along about there when I think that a very much larger
amount could be and would be done in this common factory and
warehouse work which is used in building the gas works.

Q. Now to get back to the question, you figured about five and a
half hours for laying a thousand brick, \$4.00 at seventy cents an

hour. Five hours would be \$3.50, call it five hours and two thirds, for a thousand brick is that right?

A. I figured that a brick layer in this case drawing seventy cents a hour would get where a thousand brick are laid somewhere between \$2.50 or \$3.00 out of that \$4.00 and the balance of that would go to the man that was stirring the mortar and assisting him as a laborer.

Q. Well didn't you figure any closer than somewhere between \$2.50 and \$3.00?

2400 A. Oh no you can't.

Q. Can't?

A. No.

Q. So on a \$2.50 basis your man would lay a thousand brick in between three and four hours. Just about three hours and a half, seventy cents goes into \$3.50 three times—four times would be \$2.80.

A. About 4.3 or less in about three. Men vary so much in their working that it is absurd to attempt anything less than rough figures on what a brick layer will do.

Q. And the balance goes to the hod carriers and mixers and so on?

A. Yes, people that have to be on hand and helping.

Q. Now what did you figure the back filling?

A. At fifteen cents a cubic yard.

Q. 49 yards?

A. 49 yards, \$7.35.

Q. How did you figure the walls, did you figure them separately.

A. Referring to what walls?

Q. Well it is the next item in the inventory in this same building. For instance you take this wall here four inches thick the company takes seven and a half brick per square foot of wall area?

A. I take five and two third brick per square foot of wall area. Thirteen inches thick the company takes twenty and a half brick per square foot of wall area, and I take 18.4, that is about 18 and a half bricks although I knew there were but sixteen bricks in a cubic foot at the time. A seventeen inch wall the company takes 30 bricks to the cubic foot and I have taken 24.1 bricks to the cubic foot again allowing an excess of about two bricks in a cubic foot.

Q. Have you gone through the total number of brick in 2401 these walls, or did you figure the walls separately?

A. We had to figure them one after another and carry them on down.

Q. Have you got this north wall?

A. What page?

Q. Page 19?

A. North wall 13 inches thick 30 feet one inch and 13 feet six inches by 22 and one half brick gives the company's figures 21,319 corrected figures 17,446.

Q. Now at how much did you figure that a thousand?

A. Will you go on down, if you will notice here until you get brick enough you would not want to figure it out in detail.

Q. I want to get the way you figure it.

A. We just corrected your brick figures following them as carefully as we could on down.

Q. You say we. Who helped you do it?

A. Both Mr. Hasek and Mr. Dobson.

Q. Who made the figures as a matter of fact?

A. Who worked these figures out?

Q. Yes.

A. You mean the fundamental figures or details?

Q. Details?

A. The details were elaborated either by Mr. Hasek or Mr. Dobson. And I judge by the figures that these figures were worked out by Mr. Hasek.

Q. What you know about it is what you infer from the figures?

A. How else could I know anything about it?

Q. You might have directed somebody to do it or have seen it, but I infer you did not.

A. Directed them?

Q. Yes.

A. They did it under my constant personal supervision.

2402 Q. Then do you know who did it?

A. Mr. Hasek I just told you.

Q. Have you any knowledge of it except from your recognition of the figures?

A. Of his figures?

Q. Yes.

A. I am certain as I can be that I know his figures.

Q. I don't deny that, I didn't ask you that. What is next.

A. Water table four inches thick.

Q. Number of brick?

A. Number of brick is not exactly given for the company but I figure it 180 brick.

Q. What was the next item?

A. Then comes the gable, take the company figures——

Q. I don't care for the company figure, just give me yours.

A. 2,812.

Q. Now the water table?

A. 4,418.

Q. Cornice what did you take?

A. Cornice 407, 232, 272. Pilasters 468, 199.

Q. What did you deduct for openings?

A. 4284.

Q. That is the figure that we have deducted for openings.

A. Yes, that is the figure you have deducted for openings.

Q. Now why didn't you figure deductions on the same basis you figured wall?

A. Because they are relatively very small indeed the brick go up into many thousands.

Q. Are they smaller than the item of 540 brick or 308, or 360?

A. No, but I am talking in aggregate figures now.

2403 Q. So when you come to deduction of the openings you take the company's basis of brick and deduct more than you really thought ought to have been deducted?

A. No, not to make any difference, it is to small a matter.

Q. Well the whole thing is not a very enormous matter is it?

A. No, but where you run up into millions of brick and the openings amount in the total to only about 26,000 it doesn't make very much difference.

Q. Now then on the south wall how many brick did you take?

A. 26,434.

Q. And what did you deduct for openings there?

A. 4,532.

Q. So that we have about 9000 brick there in those two items where you took the company's figures instead of what you claim are the correct figures?

A. Yes, for the reasons stated.

Q. Now then take the east wall, 69,345, what did you take instead of that?

A. 56,710.

Q. Now take the water table, the same item, 734 did you think that worth while to make a deduction?

A. The water table is given by you 734 but it turns out to be 997 bricks.

Q. Yes, I knew that was one we were wrong on.

A. So you have been given credit for the extras right there?

Q. This is 1860?

A. That is 1442.

Q. Take the next one, cornice, 1710, what do you take there?

A. 1294 and 739.

Q. And the next item, pilasters?

2404 A. 1156 and 129.

Q. Now less openings, 9821, was that worth while to figure that?

A. No. Just let it go at that.

Q. The west wall 93111, what did you take?

A. 75067.

Q. Less openings 6960, did you take that?

A. Left that as it is.

Q. Now then walls division B in lieu of 4,546 what did you take?

A. 3434.

Q. And the next instead of 1733?

A. 1309.

Q. And instead of 1530?

A. 1178.

Q. And instead of 563?

A. 456.

Q. And instead of less openings 615?

A. Let me explain about those openings——

Q. First answer my question.

A. Yes, with this explanation that the phrase less openings a certain number of bricks conveys no dimensions, length, breadth or thickness by which you can compute the amount of the openings nor are the drawings large enough to enable you to scale off the openings so that assuming that these people always over estimated the amount of their brick for these openings and to be on the safe

side by allowing them their over estimate I took out more brick than I would have computed for myself, gave it to them and subtracted it at the end here so leaving less openings I have been more generous to the company.

Q. Now I will call your attention to Exhibit 16, building 1, the sketches and ask you to point out a single opening in that 2405 building where the dimensions are not given?

A. This is the building we are talking about isn't it?

Mr BRENNAN: I don't think we ever had that Mr. Guernsey:

Mr. GUERNSEY: You had a blue print of the same thing

A. They have here a very complete drawing, but the openings are not specified less openings does not specify what the openings are. But that is a matter of no consequence because I have allowed you a great deal more opening in brick than you have claimed.

Q. These are deducted aren't they and your generosity to deduct from the total brick isn't it, you understand that don't you.

A. Well you see what I mean——

Q. No answer my question.

A. I have taken the statement here——

Q. You understand this Exhibit 16 don't you?

A. Yes, sir.

Q. You understand that these things you say you have been generous and given more than entitled to are deducted?

A. I have not disputed it.

Q. So the result of giving us your generosity is to make smaller walls relatively?

A. That will make hardly a particle of difference, the amount was so small it does not affect it practically.

Q. You said a few minutes ago these drawings were so small you could not scale the openings?

A. That is true.

Q. It was not necessary to scale them because there it showed the size of them didn't it?

A. No, I didn't say that.

Q. That is the fact isn't it?

A. Not entirely. They don't describe the openings.

2406 Q. Point out an opening where the drawing don't show the size of them. Let's get down to brass tacks and if there is an opening in that building where the drawing don't show the size of it, where is it?

A. That may be true, but if those shows the openings you have got another things——

Q. You said a moment ago that this Exhibit 16, did not indicate where the openings were, aren't the openings up and down opposite each wall?

A. Some openings.

Q. Such openings in connection with the brick in each wall isn't that it?

A. For instance the walls in division B four inches thick, then it goes on here and speaks of the west wall thirteen inches thick the

same as the east wall and then ends up finally by saying less openings 615 brick.

Q. Oh I beg your pardon, you are not familiar with this.

A. The mere phrase openings don't convey amounts.

Q. Under west wall you have less openings don't you, the second line below the west wall? The same as the east wall then less openings?

A. Yes, sir.

Q. When we get down to division B there is less openings?

A. What are the walls in division B?

Q. If you turn to Exhibit 16 there you will find division B won't you on the sketch or are you familiar with these drawings?

A. I have been over them.

Q. Carefully?

A. As carefully as a man could who is furnished with several hundred drawings and requested to examine them within a week or two.

2407 Q. Have you only given a week or two to the making of this appraisalment?

A. I have been busy with this appraisal now for five or six weeks, but in that time I certainly could not give a lot to study of these minute drawings.

Q. Then do you mean to have it inferred you are not familiar with them?

A. I do not.

Q. Are you familiar with them?

A. To a certain extent, yes, sufficient to get a general idea of the buildings.

Q. Now turning to these sketches of building No. 1, can you find there division B.

A. Division B is shown here as the walls surrounding the elevator.

Q. Do you find both a plan of that and a profile and in addition to that some longitudinal sections?

A. I find a plan of the four inch wall, I find a longitudinal section AA showing the foundation of Division B and in addition to that I find the following statement on page 20 of the inventory giving me the amount of brick claimed to be in the four inch walls which go up around the elevator.

Q. Now is it at all difficult for anyone who is familiar with plans to take these sketches and find out the dimensions of the openings in the walls in division B or in any other wall referred to?

A. If you will take a look at this you will find there is shown a window and a door in the elevation there, I presume this omitted, there is the slant of the roof here. I am not able to tell whether there are any side windows in this or not from the side view as a blank wall is presented I presume it is intended there should not be any side window-

2408 Q. You just pointed to a blank wall here.

A. Yes, sir.

Q. Turn to sketch No. 5, is an elevation given there that shows this outside wall of this division B of this building?

A. There is a sketch given there that shows the east face to the window and door of division B.

Q. Is there a sketch here that shows this looking at it from the north, looking at the whole building?

A. The sketch looking at it from the north is interfered with and not complete because of the oxide elevator, but you find a sketch on the next page sketch No. 4 which gives you a blank wall there showing clearly a blank wall there.

Q. Now then to go back do you mean to say that it is true that you did not correct these deductions because you could not tell from these plans what the size of these openings were?

A. For that reason in some cases, but not as the controlling reason. The controlling reason was the relative smallness of them.

Q. You failed to make the corrections there decreasing the amount of brick which you put into the building don't it?

A. Somewhat, very slightly.

Q. Now what was the total amount of brick you figured in that building here?

A. You refer to building 1, A and B?

Q. The one we have been talking about all the time, page 20, Exhibit 15?

A. You must recall that I have always been giving you 18 brick instead of 16 which is all you are entitled to.

Q. It may be admitted that the witness claims that. I think this is about the fifth time he has volunteered it during his cross-examination and he seems to think we won't appreciate his generosity?

A. On page 20 the bulk of the brick in this building are given as being 183,167 at \$16, per thousand making a total of \$2,930.67 but I think there are a few brick later on.

Q. Well let's take the total of this batch here, we will find the others when we get to them. 183,167 was the net after making your deductions?

A. Yes, sir.

Q. What was the gross amount?

A. 209,379.

Q. And the item of deductions which was too insignificant to pay attention to amounted to as much as one eighth of your total didn't it, 209,379 and your deductions 26,212.

A. I took 26,212.

Q. So this insignificant item aggregated one eighth of your aggregate?

A. That would be about 20,000 to take out instead of 26 if we would reduce it by 30 per cent.

Q. So this insignificant — was about 6000 brick, is that correct?

A. Yes. I may be wrong about that, I will figure it over and bring it in in the morning.

Q. You put this brick in at \$16.00?

A. Yes, sir. Scaffolding was in at \$1.00.

Q. That \$16.00 was made up as you made it up for the foundation?

A. For the foundation brick, yes.

Q. And you made the cost no more for laying the walls and pilasters and things like that than the cost of laying brick in foundations

A. For pilasters I added \$1.50 a thousand for the extra trouble of turning corners.

Q. How much did you add on that account in dollars?

2410 A. How much.

Q. Is that in your \$2,930.67?

A. Those are bricks.

Q. They -re, look again.

A. \$2,930.67.

Q. Are those bricks?

A. Those are brick, common brick at \$16.00.

Q. What is the 2,930.67, bricks or dollars?

A. This is for common brick.

Q. What do you add on account of pilasters in dollars?

A. \$1.50 a thousand.

Q. How much in dollars?

A. It amounts to \$14.65 extra labor.

Q. Did you add anything else there?

A. Scaffolding.

Q. That is a separate item below this brick work?

A. Yes, sir.

Q. You have given us everything on account of that brick work, \$2,930.67 and \$14.69, I mean brick as far as we have gone?

A. Yes, that is what I think.

Q. If there are any further we will come to that farther along.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

2411

Thursday Forenoon Session.

AUGUST 17, 1911—at 9:30 a. m.

Counsel for respective parties all present.

Testimony on part of defendants resumed as follows:

WILLIAM D. MARKS, continuing his cross examination, examined by Mr. Guernsey, testified:

Q. Professor, did you bring this New York inventory and appraisalment?

A. I did, yes sir. I would say this is very valuable to me; I use it all the time as a matter of comparison, if you will return it to me.

Q. I don't want to deprive you of it. Now this book you handed me is not the inventory you prepared?

A. That is the details of the inventory which I prepared. I brought it down because of the fact that you asked if it was an inventory in detail.

Q. I asked you yesterday whether you made an inventory and whether you had it here and I understood you to say yes to both questions?

A. You are right.

Q. Now where is that inventory?

A. In your hands.

Q. This first page is headed "City's Exhibit 126" and the various columns printed here give Meyer, 1906, actual cost; Meyer depreciation value—who was Meyer?

A. Meyer was an expert from Baltimore, from a maker of apparatus in that city—I cannot recall the name, but he was the selling agent of this apparatus—and he came on and in response to a series of questions orally gave the values as he estimated them of the various pieces of apparatus. He did not furnish anything more than oral evidence and a few exhibits, no completed inventory.

2412 Q. He testified—was he called as a witness by the City or the Company?

A. By the company.

Q. Then these columns here under his head are not any appraisement or inventory made by you?

A. They were picked out from his testimony for the purpose of comparison with my own values.

Q. Take the first number here, Valve House and Vault Under Yard, Date, Inst. or Erect, 1863. Then comes Meyer's Cost and Depreciation value, ground area 395.04, cubical contents superstructure only 5,818.94. Now are there any more details in this inventory with reference to that building, not the cost of it but the structure itself than I have read?

A. None that I recollect; you must recollect this is five years ago.

Q. Will you look at it and see if you can refresh your memory and tell us whether there is anything in this so-called inventory any more in detail than what I have just read—I don't mean the price and values and that sort of thing, but the description of the building itself?

A. My assistant at that time, or assistants—I had eight of them—were—

Q. I don't want to interrupt you, Professor, but the question is whether there is anything further in this inventory any more in detail than I have just read here?

A. Not that I know of in this inventory. There was a good deal before the inventory was reached—

Q. I know, but I am talking about the inventory and do not care about the other. Now are each of the other buildings referred to in the inventory described in the same way?

A. Very much.

Q. Does the inventory show any greater detail as to any building covered by it than was shown as I read as to building number 1?

A. I wish that my memory was better, but if there was any greater detail given it was cut down to about the same thing as that for the other buildings.

Q. I am talking about this so-called inventory?

A. It was all on that basis, that inventory.

Q. It does not even show whether the building is brick, stone, concrete, frame or what style?

A. I think it does.

Q. Where?

A. I think the statement is made——

Q. Find it for us then?

A. The statement must have been made early that all of the buildings were brick unless specially specified otherwise. It does not show—is that what you want?

Q. I asked you to point it out if it did—it does not show there, does it?

A. No, it does not show.

Q. Now did you yourself make these measurements—the only thing that appears about the building here is the date of its erection, the ground area, the cubical contents of the superstructure?

A. For those ten gas works?

Q. In this inventory here?

A. No, sir; I did not.

Q. On this first sheet here marked "City's Exhibit 126," was that a comparison of your valuations with those of some other witnesses?

A. If you will allow me I will explain to you what it is.

2414 Q. Please answer the question.

A. In part.

Q. Now that was Exhibit 126. Now you have bound with it "City's Exhibit 126 Continued." Now passing houses, we will take up some of the apparatus. First I notice item number 38 here, four purifiers, 16 feet by 27 feet by 3 feet 6 inches. Date of installation 1863. Is that all the inventory shows about them as to their character?

A. Yes.

Q. Next I note another item here, three meters; 1882 is the date of installation or erection. Nothing else whatever in the way of description of them, is there?

A. If you can't find it there.

Q. I don't find it—of course I am not as familiar with it as you are. Now I notice here item 70, two small boiler pumps; no descriptive matter whatever. Are those things I have been reading to you fairly indicative of the way in which this exhibit that you have been referring to is made up so far as the description of the property is concerned?

A. Yes.

Q. And as to each piece of property there follow columns showing the Meyer valuations and your valuations?

A. Isn't there Rowland valuations in there?

Q. Maybe Rowland as to some of them, actual cost.

A. And isn't there some of Lacombe's valuations there, chief engineer of New York City—in order to be perfectly fair, the chief engineer was asked to go out independently——

Q. We don't care anything about your fairness in that case——

Mr. BYERS: It is your fairness——

Q. Did you say in order to make me perfectly fair the
2415 chief engineer was asked to go out independently——

A. That would be the result if you read that carefully.

Q. Do you wish to stand by your answer to that, that in order to make me fair——

CHARTS

TOO

LARGE

FOR

FILMING

A. Allow me to correct this and give independently valuations—

Q. I want to know whether you stand by your answer made to the last question.

(Question repeated.)

A. I don't think it is worth—

Q. Well, pass that; I don't think it amounts to anything. The next thing shown here is "City's Exhibit 127." That was an independent exhibit—these were not bound together in this way when offered in that case?

A. They were offered in typewritten form.

Q. They were not bound together, were they?

A. I cannot recall that. They were offered in typewritten form, large sheets; whether they were bound together I can't recall, that was a matter for the assistants in my office.

Q. Here again, as to buildings you show nothing but the ground area contained and date of installation or erection; that is true, is it not?

A. Yes.

Q. And that work was not done by you yourself?

A. Every building was inspected personally.

(Question repeated.)

A. What work do you refer to particularly?

Q. The work covered by the last question, the work of giving the ground area and cubical contents?

A. I did not compute the cubical contents. If I remember rightly I did compute the ground areas, preferring those as a
2416 check. I am not certain even on that point.

Q. Did you make the measurements?

A. I did not.

Q. And this Exhibit 127 shows apparatus in the same way it is shown in the earlier exhibit as to another station?

A. Yes.

Q. Now next comes Exhibit 128, Forty-Fourth Street, that lists the property as the previous exhibits have as to other stations?

A. It does.

Q. Will you permit the reporter to take this and copy Exhibit 126, Professor Marks?

A. Certainly.

Q. Is that Exhibit 126 typical of the other exhibits in this bundle which you call your New York inventory?

A. I should think so; part of it.

Q. This includes separate exhibits up to and including 135, does it not?

A. I think it does.

Mr. GUERNSEY: We will offer this Exhibit 126 to illustrate the character of this so-called inventory in connection with this cross-examination and ask that the reporter copy it into the record.

Said exhibit is as follows:

(Here follows Complainant's Exhibit 39, marked pages 2417, 2418, 2419.)

2420 Q. This valuable document you speak of is a printed record of that case?

A. It is.

Q. And where is the valuation of the New York property?

A. In Wilcox vs. the Consolidated Gas Company, in my early testimony incorporated there as a succession of brief summaries.

Q. Have you here a copy of your Cleveland inventory or the Buffalo inventory?

A. I have, but it is in my room; I can bring it to you.

Q. Will you bring the Buffalo as well?

A. I am not certain I have the Buffalo.

Q. Are you certain you have made one in Buffalo?

A. I think so.

Q. You are confident of that?

A. I am quite confident on that point.

Q. Have you a copy of the Jersey City inventory?

A. No, I haven't.

Q. You didn't make one there?

A. Yes, I reported to the tax commissioners.

Q. Did you make a formal inventory of the property?

A. In Jersey City, to the extent of the capacities, yes and using units.

Q. What do you mean by the extent of the capacities?

A. Unit capacities and average prices per unit.

Q. I am talking about an inventory and list of the property value.

A. An appraisalment of Jersey City, including much detail, was not *not* made and could not have been made in the time I had. But appraisalment was made on the basis of averages, and the units and such pieces of apparatus as happen to differ from the usual run of gas works.

2421 Q. I want to get back to the question I asked you, whether there was a detailed formal list of the property in Jersey City made?

A. Not by me; there was one handed to me there, just as here, if I remember rightly, but even that I did not use.

Q. What you did down there, as a matter of fact, was to estimate the value of some other plant, not the plant they had there, you didn't estimate or attempt to confine yourself to the apparatus they had there in Jersey City?

A. In addition to the gas works—I did not mention that to you—I estimated the value of the Marion Electric Power House—

Q. I don't care about anything except gas works and the gas works in Jersey City, you did not attempt to estimate the actual plant that was there, but you substituted another plant for it?

A. An equivalent capacity; you may put it that way.

Q. Returning to Exhibit 15, your scaffolding, you say was included in the \$16 a thousand for the brick in the walls?

A. No.

Q. How much did you allow from the item of scaffolding?

A. \$1.

Q. What was the aggregate of it?

A. \$17 a thousand—you mean of the scaffolding itself?

Q. Yes.

A. If I remember rightly \$200; just even \$200.

Q. Now the next item, roof slate, how many squares did you allow for there on page 21, I see it is given?

A. 33.96 squares. And also the roof on slate on division B 1.66 total 35.6 square-, at \$10 a square \$356.20.

Q. Now what are the factors that you took into account in getting this \$10 a square?

A. Slate and labor.

2422 Q. What else?

A. The quality of slate has a good deal to do with it.

Q. What else besides slate and labor?

A. I don't know that there is anything else in the matter of slating.

Q. How do you attach the slate to the roof?

A. Well, there are a number of ways.

Q. What did you figure on here?

A. Ordinary nails and wood. I did not examine to see what kind of nails they used, I will tell you that right to begin with.

Q. I am interested in having the information, but I haven't inquired about that; I assume though that if you made an intelligent or careful estimate you took into account the fact that the slate was to be attached to the roof, is that true?

A. Yes.

Q. Did you take into account anything for materials?

A. Slate.

Q. In attaching it to the roof?

A. The average number of nails.

Q. Now, then, how much of this \$10 was labor? Can you give me this information without referring to a book?

A. I am not an encyclopedia of facts of this sort; I am not a carpenter or roofer; I haven't an infallible memory; anybody knows perfectly well that this sort of thing is never expected of an engineer, that you are talking about.

Q. Will you answer my question. Can you give me the amount of labor that would go into that estimate of \$10 a square?

A. Yes.

Q. Without referring to a book?

A. No.

2423 Q. What would the labor that went into that \$10 a square be worth per day?

A. I have already stated to you I cannot answer that without a memorandum.

Q. How long is it since you have had something personally to do with the construction of a building that had a slate roof on?

A. Last summer.

Q. Where was it?

A. In New York state.

Q. Where?

A. At my home.

Q. Your residence?

A. No, it is nothing so dignified as that.

Q. What was the building?

A. It was an estimate for slating.

Q. An estimate for slating, where was the building?

A. The building was located in West Port, my home.

Q. Now, aside from that, have you had any experience in connection with slate roofs for the last forty years?

A. Oh, yes.

Q. What was the last one?

A. Do you mean that I did any slating myself?

Q. Aside from that, have you had any experience in connection with slate roofs for the last forty years?

A. The last that amounted to anything was a series of estimates for the roofs of the Inland Empire system going south from Spokane in an electric railway; I do not think they were used or carried out.

Q. I want to know one that was built.

A. I do not recall any. I probably had a lot of them but
2424 I wouldn't pay any attention to it.

Q. Can you tell me the actual cost of any piece of slate roofing that has been done anywhere within the last ten years?

A. I never took the trouble to look up the details. About \$10 is considered all right for the common variety of slate.

Q. So that you have neither done any of this work nor do you know the actual cost of any job that has been done within ten years?

A. I am not a slater, consequently can not tell you those facts.

Q. Is it your idea that slaters are the only people who have a practical knowledge with reference to those matters?

A. That is true, unless you have U. G. I. pamphlet sent to you giving you facts and figures.

Q. How did you get that \$10?

A. I took it as a standard rate.

Q. Where did you get it, in one of these books?

A. Yes, shall I give it to you?

Q. No.

A. I have a number of rates here.

Q. It is not then predicated upon any actual experience or observation of your own?

A. As a roofer, no.

Q. I didn't put it as a roofer in the question, please answer the question.

A. Yes, it is predicated on my general knowledge of the cost of roofing.

Q. Will you give us the actual experience of your own in constructing or supervising the construction of roofing of this character from which you say you predicate this estimate?

A. As I explained to you, of course there is a very large amount of work that an engineer, a busy one has to do in which he
2425 takes the values in a large way of standard rates. The last case of slating I remember that I prescribed was for the Dur-

ham Coal Gas Retort House in which slate was used for the roof as it is, I think in all retort houses. I think I prescribed lead nails bent around wrought iron purlings and the man in charge of that work got some arrangement by which he used the ordinary sheathing and galvanized wire nails and nailed his slate to the roof; that is as near as I recall it; I recall we had an immense amount of slate roofing under the specifications of William Pharmer in the Laclede gas works and there have been a number of other cases I cannot recall in regard to electric light stations. At one time I was engineer in chief for the old Edison General and looked over the specifications of all their roofs but in every case of that sort, beyond general values I have been obliged, as a busy man, to relegate it to some man specially skilled in the details or some inspector.

Q. So that in this case you simply referred to some book and got the \$10 and took the number of squares here and multiplied it?

A. No, it is not the case at all. I happen to recall it was about \$10 that most of these stations cost.

Q. Anybody, whether he was an engineer or not, could go to this same book and take this inventory and multiply it out?

A. Just as you did for bricks.

Q. Do you regard a valuation made that way as equally trustworthy with one that is made by a man who has had practical experience and can check these things by his experience?

A. I should certainly not.

Q. Now then, what are these roof supports, the next item?

A. I presume they mean roof trusses.

Q. Don't you know?

2426 A. I thought that meant roof trusses.

Q. Could you intelligently estimate their cost in place without knowing what they were?

A. I looked at them and I thought they meant roof trusses.

Q. Are you satisfied that is right?

A. I so corrected the reading in my mind and assumed they were roof trusses that held the roof up.

Q. What was the 2090 feet board measure roof trusses?

A. I saw it stated in this book and I so accepted it.

Q. Where is it stated in the book?

A. Roof support, 2090 feet board measure, \$27 per M.

Q. The \$27 is your figure?

A. Yes, sir.

Q. 5061 board measure, what sort of stuff is that, is that roof supports also?

A. It is so stated.

Q. I am asking what it is as a matter of fact?

A. It does not go into details there, it looks like wooden material timber in there.

Q. What was it as a matter of fact?

A. The upper half the 2090 appears from what you stated—

Q. I beg your pardon, will you allow me to distinguish between

the two; I don't want you to base your answer on what I stated, base it on your own knowledge.

A. I base it on statements furnished to me by the company or by yourself.

Q. What statement have I furnished you with?

A. In regard to the roof support, exhibit 15.

Q. You don't mean that I personally furnished it to you?

A. No, the company did.

2427 Q. Go on and tell us just what that 2090 feet is used for?

A. That is supposed to represent the long timbers, assumed by myself, immediately adjacent to the roof sheathing.

Q. That is the rafters?

A. Yes. And the 5061 feet below is assumed to represent the ordinary length, not the great length, there is a distinction in the prices here, giving an additional \$2 per thousand for the long timber.

Q. Let us stick to the question now. 5061 is the ordinary length of these same rafters?

A. Taken as such at \$29.

Q. What did you nail your slate to?

A. The Sheathing there.

Q. Where is it—you haven't got anything but rafters.

A. The lower half you have here 5061 is ordinary board measure.

Q. You just told us that was rafters.

A. No, I did not; you told me it was rafters.

Q. Didn't you in response to a question of mine a few moments ago assent to the proposition that was the rafters?

A. I told you this 2090 feet had \$2 added to it on account of extra length. You notice the statement is made here that there is extra length here at—per thousand per length over 16 feet; isn't that there?

Q. No.

A. This is what was given me; this is what I go by.

Q. Oh, no; don't the plans show something about this building?

A. Let Mr. Hazard here bring the blue prints. The plans show nothing a man could take quantities from.

Q. Did you hear the testimony of Mr. Randolph who took all his quantities from the plans?

2428 A. I wasn't here most of the time, only at the finish of Mr. Randolph's testimony.

Q. Then you didn't hear his testimony that he accepted the quantities here?

A. No.

Q. What is your conclusion now as to what that 2090 feet was?

A. At the top?

Q. Yes, what it was as a matter of fact.

A. I accepted it, as I told you, examining it, that this was their

long timber nearest to the roof and the balance below is timber used for all other purposes and of ordinary length.

Q. The balance below that is sheathing?

A. Not necessarily; there may be cross pieces in it; there probably are cross pieces in it. I didn't go into the details in this way or I would have been here six months if I had.

Q. What were the 451 pounds of iron?

A. There were a lot of iron rods that you see in these wooden trusses; I took it for granted that was the stuff.

Q. Now what did you estimate this 2090 feet board measure at?

A. \$27. plus \$2 making \$29. common timber. Do you want the amount of it?

Q. Yes.

A. \$56.43. That happens to coincide with your own figures, I think, the Company's figures.

Q. Where did you get your \$27.

A. From the firm of Queal & Company here who sell lumber.

Q. That then was not based on your own experience but on what somebody told you, isn't that right?

A. As in every case, I have been obliged to learn prices from dealers.

2429 Q. You have not your own experience in the purchase of things like that to help you?

A. Not in Des Moines.

Q. Nor elsewhere as a matter of fact, have you?

A. I have been accustomed to purchasing lumber and other matters in a large way.

Q. Now, then, what did you allow for your 5061 feet B. M.?

A. I allowed a rate of \$29 for that board measure, which included nails and that sort of thing.

Q. Did your \$29 on the other include nails?

A. Well, there is very few nails in these big timbers you know.

Q. How much of the nails was there in the \$29.

A. I have to acknowledge squarely I don't know enough about buying nails, my experience as a nailer is not sufficient to tell you how many were used.

Q. Your experience in building operations is not sufficient to tell us how many nails were used there, is it?

A. No, I should think not, although my experience has been very large in building operations involving nails.

Q. How do you ordinarily figure the cost of such things as that in estimating buildings; do you figure it as a percentage on the day labor or lumber or what?

A. I generally ask the carpenter about how many nails he will need and send around and get it in that kind of work.

Q. That is the way you estimate it?

A. That is the only way you get any practical results.

Q. Did you ever hear of it being the practice among people actually engaged in such work who keep the details of the costs on various jobs so as to get a basis for estimates?

A. Oh, yes.

2430 Q. How do contractors and estimators usually get at these items, such as nails and things like that?

A. They usually allow what they think that particular class of work will require.

Q. Do they base it on the thousand feet of lumber or on the labor?

A. Well in lathing, for instance, they base it on the number of laths, and in sheathing they base it on about so many nails to a board judging about the boards; the way the timber lays has a good deal to do with it.

Q. Tell us what would be the ordinary allowance per thousand feet sheathing for nails?

A. I never made it in that shape. I have almost built a small village with the use of nails, personally belongs to me, so I know a great deal about that sort of thing.

Q. How much would be the allowance for carpenter work for a thousand feet of sheathing?

A. That all depends—from cabinet work——

Q. I am asking about roof sheathing such as we have here?

A. I have allowed you \$2 a thousand right along for nailing on the sheathing.

Q. How much for the lumber delivered?

A. About \$27.

Q. Do you know whether that is exactly or not?

A. It is only what Queal & Company told me.

Q. Don't you know whether you put that in your estimate or not?

A. Oh, yes.

Q. \$27 for lumber, and \$2 covered the other items?

A. Yes, sir; all the rest, makes a total of \$146.77.

Q. What are your carpenters earning a day, do you remember?

A. No.

Q. All right. That is all I care for. I can look it up just
2431 as well as you can. How much do you allow on account of iron?

A. Three cents.

Q. Three cents a pound in place, that gives you what?

A. \$113.53.

Q. Now, then the next item is sheathing 3562 square feet, where did that go?

A. When that blueprint series comes here I may be able to find it for you.

Q. Didn't you check those things up on the plans at all to get some idea what it would cost to do this work?

A. Certainly not.

Q. You just took this list of so much material and asked somebody what it was worth and multiplied it out?

A. No, I went to work and looked it over, located it as well as I could, and by the time I get through with the building I checked

it out by finding out about what its area was and looked at its condition and gave an estimate of it.

Q. While waiting for these blue prints, what would be a fair estimate of the cost of such building as this, per cubic foot, taking the cubical contents down to the lowest floor? Don't figure it from your book cost; tell us whether you know?

Mr. BRENNAN: I submit that the witness may have the privilege of answering in his own way.

Mr. GUERNSEY: All I want to get at is to find out whether the witness has that knowledge.

The MASTER: If you know, say so, and if you don't say so.

A. I have not figured it by the cubic foot.

Q. Please answer the question. Do you know what would
2432 be a fair estimate per cubic foot down to the first floor, not including foundations, of the cost of a building such as this, if so, what is it?

A. I wish you would be a little more clear in your question.

Q. Question repeated.

A. Do you mean I should give you the cubic foot value on that or do you want to know whether I did estimate the cubic foot value?

The MASTER: All he wants to know is whether you know?

A. I don't know for I didn't figure it.

Q. You have no general information on that subject?

A. Certainly not.

Q. That is a very common way to make rough estimates of values for cost?

A. A very misleading way, although a very common way.

Q. Now, then, where was this 3562 square feet of sheathing used?

A. I presume either in the roof or monitor, I don't know which.

Q. What did you estimate that as worth in place?

A. Four cents a square foot, \$142.48.

Q. Four cents a square foot?

A. Yes.

Q. Four cents a square foot would be how much a thousand, can you do that in your head?

A. Looks to me like \$40.

Q. You got 3562 square feet and you say you estimated it at how much?

A. Four cents a square foot.

Q. But your aggregate?

A. \$142.48.

Q. Doesn't it occur to you that three and a half thousand at \$40 a thousand would amount to more than that?

A. It makes about \$140.

2433 Q. You gave me \$40.

A. \$40.

Q. It ought to be \$140?

A. There are 3562 square feet at \$40 a thousand which comes pretty nearly making \$142.48.

Q. Now, why did you make that sheathing \$40 a thousand and the roof supports only \$29 a thousand?

A. There is a lot of hauling around, sawing and nailing and that sort of thing.

Q. Do you mean to say there is a lot of labor or less labor in putting on sheathing than there is in framing and putting in place rafters?

A. Yes, sir; when you use big timbers the amount of labor that you have, gin pole swinging them up don't amount to very much.

Q. Did you figure a gin pole in swinging these things up?

A. I would use one if I was there all the time. I will tell you how to put these roof trusses up.

Q. Let me ask the question. You say it cost more for labor?

A. Per thousand.

Q. How much labor is there in that \$40 per thousand?

A. Well, I should judge—I have been pretty liberal there—about ten dollars' worth of labor.

Q. How much did the sheathing cost?

A. Oh, here—you get it down, if you get it down on the Mississippi river where the prices are right—

Q. I mean, what figures you took?

A. Anywhere between \$27 and \$30.

Q. Didn't you figure closer than between \$27 and \$30?

A. I wouldn't here.

Q. I want to know just what you did to get this specific
2434 \$40 to know what you would do?

A. Put it down this way: About \$27 for the stuff delivered; about \$8 or \$10 for labor, call it \$8 for labor, and \$5 for the nailing and troubles and general margin, and that would give you about \$40. I can see at once that this of course can only be a rough estimate.

Q. Didn't you say on your direct examination that this was such a close estimate that you did not need to figure the ordinary percentage for omissions and things like that, justifying your refusal to do it on that ground?

A. No, I said it was such an elaborate list carried to such extremes that there was no necessity of figuring any omissions.

Q. Now what did you figure that sheathing is worth, such ordinary roof sheathing, per thousand, take the lumber itself?

A. Around here, those are the figures. I am simply accepting your local figures. I would not stand for over \$22 a thousand for lumber of that quality in the east for a minute.

Q. We are in the wild and woolly west—so let us take the local conditions and will you tell us that ordinary roof sheathing in Des Moines costs as much per thousand as roof joists?

A. I don't know. When you include labor it may cost more.

Q. I am talking about lumber.

A. That \$40 includes labor.

Q. I am asking you whether you mean to say that the ordinary roof, the ordinary common lumber that you use for sheathing—if I remember rightly that is what you used for sheathing?

A. If I remember rightly there was one side of that roof was better than the average and was painted.

Q. The painting is here as a separate item.

A. I don't know, I will look and see if you like.

2435 Q. We will get to that. To get back, I want you to state definitely and certainly, if you will, whether you mean to say that the price of sheathing, taking the price of lumber itself delivered, but not in place, is the same per thousand feet as of roof joists in the city of Des Moines?

A. I do not.

Q. Which is the more expensive?

A. You mean plain stuff; what are you talking about—in the lumber yard or in position where it is?

Q. The question stated, delivered, but not in place?

A. Delivered along side and not in place?

Q. Yes.

A. Well, I should think delivered along side but not in place it would come pretty near about the same here in Des Moines, pretty close, one as close as the other, unless you had some very long timbers, I wouldn't make any practical difference.

Q. Why do you put sheathing at \$40 and roof support at \$24; why didn't you give us the \$5 on roof supports?

A. Because I told you I would swing them on a gin pole. I think if I remember rightly—of course I can't recall—you had rather a good quality of sheathing here, something rather fine as compared with barn roof structures we had in some of the other buildings.

Q. You told us a few moments ago that you estimated it at the same price per thousand?

A. Isn't that a rather finer quality of sheathing than is used generally?

Q. I don't know myself; I supposed you were familiar with those things, you are an engineer.

A. I haven't got a cast iron memory.

2436 Q. You still adhere to the proposition that the labor and iron should be greater in the cost of sheathing, roof sheathing in place, than it should be in framing the rafters forming the roof?

A. If it is a finer quality, I think that is a pretty safe thing to say.

Q. Take the situation as it was here?

A. To the best of my memory, in that case.

Q. How would the quality of the sheathing effect the amount of labor necessary to saw it and nail it on and lift it up?

A. It would not affect it except that the men would do finer work; the men work according to the quality of the stuff handed to them. You give them seconds and thirds, common rough lumber and they will shove the boards two or three inches apart. They know a good deal more about it than the engineers. A jack legged carpenter generally knows more about building a roof. If you give them fine stuff they take more time and work hard at it and it costs more to get it up.

Q. Now we get to the roof slate for the monitor. I suppose you figured that in the same way you did the roof slate before, at \$10?

A. I see it is \$2.20 total.

Q. The next thing, roof supports, for what?

A. I suppose they meant monitor supports. What do they mean by these phrases?

Q. Can you estimate intelligently the cost without knowing what they *they* meant, where and what use was being made of these roof supports?

A. I know they meant so many thousand feet of timber. You have got 892 feet of board measure there, called roof support, which

I supposed meant trusses for the monitor, and I accepted it 2437 as such, there being no other reasonable explanation, and

the stuff is short and all sawed up, and there is a good deal of labor in that little work, and so I added rather an extra allowance.

(Question repeated)

A. Well, no, I suppose nobody could, if there was not an inference to be drawn.

Q. At what rate did you estimate these roof supports?

A. At the rate of \$27 for the stuff, \$10 for the cost and amount of sawing and fitting that comes in.

Q. \$37, then?

A. Yes.

Q. What is your total?

A. About \$33.

Q. Can't you give it to me exactly?

A. That is exact.

Q. That \$10 item in the \$37 is labor?

A. Yes; putting in a monitor is one of those troublesome jobs.

Q. You estimate your iron at what?

A. Three cents again.

Q. What is the total?

A. \$4.02.

Q. What is it used for?

A. In that case for holding the timbers together.

Q. In what way, be a little more specific?

A. For drawing up the framing.

Q. Does it run horizontally or perpendicular?

A. I don't recall how that iron came in. It is worth about three cents a pound and I let it go at that.

Q. What was that sheathing for?

A. The same old thing.

2438 Q. Who gave you that \$40 figure?

A. I worked that our myself.

Q. From \$27 as a basis?

A. From what I was told is the price.

Q. You took \$27 price of lumber delivered on the job?

A. That was given to me.

Q. What I want to get at is whether you took it or not?

A. I accepted it, although as I told you before, I thought it was an outrage.

Q. You did tell us that, I don't care about that. Your next thing is flashing, 144 square feet; that is for what?

A. I suppose to prevent roof leaks.

Q. You know, don't you, it is to be used where there are angles to cover those angles to prevent leakage?

A. Yes.

Q. At what rate do you figure that?

A. That is worth about—

Q. I asked you what rate you figured it at?

A. Ten cents.

Q. What?

A. Square foot.

Q. And that makes what?

A. \$14.40.

Q. Who gave you the figures on that?

A. I think I brought those from some other jobs.

Q. Now your concrete floor, did you figure that on the basis of square feet or square yards?

A. Thirteen cents a square foot has become almost a standard all over the United States for six inch concrete.

Q. And your wood floor you figured at what rate there—
2439 first will you give me the total for your concrete floor?

A. \$357.89.

Q. Now your wood floor, what did you figure the lumber at?

A. I figured that a little too high, about three and a half cents a square foot; it should have been about three, about \$40.92 total.

Q. I asked you what you put the lumber in at?

A. I said I estimated it per square foot.

Q. You have to get so much a square foot; you don't figure backwards and take so much a square foot, and then ascertain what the lumber costs; you have to take the cost of the various items and divide by the square feet?

A. No, I didn't do that.

Q. Did you take your lumber at \$35 a thousand?

A. Yes, in place.

Q. You certainly understood my question?

A. Will you specify; do you mean in the lumber yard; do you mean along side or do you mean it laid in place?

Q. Give it in each way, in the lumber yard, along side, and laid in place.

A. I should say it is about \$25 to \$27 in the lumber yard; no \$25 in the lumber yard; \$27 along side; and \$35 in the floor would be the way I would put it.

Q. You have this lumber then at \$27 delivered?

A. Yes, and \$8 added for getting it in place.

Q. What kind of lumber is this, how does it compare with sheathing?

A. Pretty good stuff; that floor, if I remember rightly, as near as I could locate, it was a floor put around the purifiers.

Q. How does it compare with the sheathing?

A. It is better.

2440 Q. You put your sheathing at \$27 a thousand delivered, didn't you?

A. Yes.

Q. You ought to put this higher, ough-n't you, if it is better lumber?

A. Perhaps I ought to run a little higher, but by throwing \$35 I am on the safe side for you anyhow.

Q. Do you want the court to understand there is more care and labor required in nailing on roof sheathing than there is in putting down flooring?

A. That is a general question. If you look at the flooring around these purifiers you will make up your mind it is about six of one and a half a dozen of the other in case of that house.

Q. Just tell us what there is about that flooring that indicates to you, if I correctly draw the inference from your last answer, that that work was not done well?

A. I didn't say that, I said it was rough work.

Q. Was the work done well?

A. For the purpose, well enough, just as roof sheathing for the purpose seemed to me a little too well.

Q. You allowed us \$10 a thousand in addition to the cost of lumber?

A. \$8.

Q. You allowed \$10 a thousand in addition to the cost of lumber for the work of the roof sheathing, didn't you?

A. I think that was it; I will look it up—yes I think that is right.

Q. In your judgment, should the amount allowed for labor in laying a floor be 20 per cent less than laying the roof sheathing?

A. Well, if you look at that floor, you will agree with me that I am right in saying yes.

Q. As a general proposition, would it be true?

A. That is something I can't answer; nobody can.

Q. Your experience is not broad enough to cover that, is that right?

2441 A. You are exactly right.

Q. Now we will pass to the next thing there, the partition holding the oxide, describe that.

A. There is a hump which runs the length of the building put in concrete, to prevent the water from being squirted on the oxide and from running over the path through from door to door, giving you a dry walking place, about six inches thick and stands up I should judge about a foot.

Q. This says here 99 feet 2 inches by 8 inches?

A. 99 feet in length from end to end.

Q. 9 inches is the height and 8 inches the width?

A. I should say about 8 inches wide and 9 inches high, looks like a curbstone.

Q. And then the other piec-, 22 feet by 2 feet by 8 inches is a cross partition?

A. Running across the building, yes.

Q. That is two feet high and 8 inches wide or thick?

A. Yes.

Q. Now, you estimated that \$10 a cubic yard?

A. Because it had a smooth finish on the outside, an attempted smooth finish.

Q. And that amounted in the aggregate to how much?

A. About 3 cubic yards, at \$10, \$30.

Q. Can you give us the figures by which you arrived at this \$10?

A. In the case of 1-3-5 concrete the following are the figures—

Q. I want to limit you to this \$10 for this specific piece of work, Professor?

A. I am working up to it.

Q. Let us start with it?

A. I can't work backwards.

2442 Q. Start with this piece of work and leave out your generalities.

Mr. BYERS: I submit the witness is answering the question.

A. I have the figures here for concrete—

Q. Can't you answer the question and tell me what figures you used in arriving at your basis of \$10 per cubic yard for this piece of work?

A. Yes.

Q. What figures did you use in arriving at that basis?

A. In the case of 1-3-5 concrete the following is the local cost of the materials in a cubic yard: for broken stone \$1.75; for sand \$1.25; the total of these two \$3. For shrinkage \$1, total \$4. For cement \$1.25, total \$5.25. For machine labor, mixing 60c., total per cubic yard \$5.85. For extra for smoothing or finishing surface in this case about \$2. Total \$7.85; for profit \$2.15, total \$10.

Q. Where were those figures made up?

A. Originally?

Q. No, this particular set of figures you just read?

A. Shortly after I came here the last time; I should say about three or four weeks ago.

Q. The set of figures that you have just read was made up at that time?

A. As far as the \$5.85 is concerned. I can locate it better by locating the time I met Mr. Dobson and through him got the prices for material here.

Q. Who gave you these figures?

A. Mr. Dobson. Mr. John Wheeler is the man from whom these figures were obtained first and verified again and again.

Q. How many yards of broken stone are there in a cubic yard of concrete—can't you tell without looking at your memorandum?

2443 A. You might say there is a full yard of broken stone in a cubic yard, because the sand and cement fill the interstices.

Q. Have you figured a full yard, can you tell without looking at your memorandum?

A. I have told you there is a full yard practically.

Q. I asked you whether you could tell without looking at that

memorandum, whether you figured a full yard of broken stone for each yard of that concrete?

A. Certainly.

Q. Did you?

A. Practically, and practically not; getting these figures from Mr. John Wheeler—

Q. Can you tell me now while I have your memorandum what part of broken stone you figured in a yard of concrete?

A. I told you then, practically a full yard.

Q. Can you tell me whether it was a full yard or not?

A. A full yard practically so.

Q. What do you mean by the word practically; do you mean to say a full yard, or don't you?

A. I will try and make it clear to you—

Q. Please try and answer my question.

A. I can't answer your questions because they are questions no engineer would put.

Q. Do you know whether in making up your estimate of what a cubic yard of this concrete we are now talking about would cost, in place, you took a full yard of stone as going into a yard of concrete?

A. Very nearly, not always; you shake it down—

Q. Did you shake it down in making this estimate?

A. I did not.

2444 Q. Can you tell me in making up this estimate of \$10 for this specific piece of work you took a full cubic yard of broken stone or not?

A. I will tell you, if I made that estimate, which I do not claim, I would take a full yard of broken stone.

Q. Then you didn't make this estimate of \$10 as the cost of a yard of concrete in place, referring to the specific concrete you now have under consideration?

A. Not before you reach \$5.85 as the actual cost of the average concrete in the bridge out here.

Q. You took then Mr. Wheeler's cost of concrete in the bridge?

A. Every time.

Q. I am glad to know that. You don't know as a matter of fact then whether there is a full yard of broken stone for each yard of concrete in this estimate of \$10 or not?

A. I don't know what Mr. Wheeler did, I told you I would take it myself.

Q. I am talking about this particular estimate, I am trying to get at what you did do; you don't know whether in making this estimate which you used there was taken a full cubic yard of stone for each cubic yard of concrete in place?

Mr. BYERS: I submit that has been fully answered and gone over.

The MASTER: I think it is fully answered.

Q. How many yards of sand did you figure in this estimate for each yard of concrete, can you tell without referring to this memorandum?

A. About one third of a cubic yard is what I computed for inter

stices and the sand and cement, in relation of 1 to 3 that are in there.

Q. Well, that don't answer my question directly; how many cubic yards of sand are there in the estimate?

A. I will figure it out for you.

Q. Can you tell me from your experience approximately how many cubic yards of sand were figured in this particular matter we are talking about for each cubic yard of concrete?

A. I submit this is getting to be absurd; the suggestion of yards of sand in a cubic yard.

The MASTER: Figure it if you can.

A. Assuming the interstices to be one third cubic yard and that the sand and cement would be in the volumetric proportion of one to three, you would have for the sand three-fourths of one-third of a cubic yard or about one-quarter cubic yard; you would have for the cement about one-fourth of a third cubic yard or about one-twelfth.

Q. You figured for each cubic yard your sand at \$1.25, as you gave it a moment ago, in each cubic yard of cement?

A. No, Mr. Wheeler did.

Q. That would make the sand, if it takes one-fourth cubic yard, about \$.50, a cubic yard in Des Moines, wouldn't it?

A. I don't know on what basis Mr. Wheeler figured this.

Q. You do know, don't you, that the computation up to \$5.85 carries \$1.25 for sand?

A. That is what Mr. Wheeler's aggregate is.

Q. That is what you gave us a few moments ago?

A. No, Mr. Wheeler did.

Q. I want to get at what you did do; you did tell us a few moments ago, you accepted these figures, didn't you?

A. Certainly.

Q. And you did in answer to my question a few moments ago say that you figured in getting at this base price, that he
2446 figured for you, getting at this base price, was \$5.25 and \$1.25 for sand?

A. I didn't say anything of the sort.

Mr. BYERS: We object to this for the reason that so far as test questions are concerned they have not only approached the limit but have gone clear beyond, and the price fixed by this witness for this item of \$10 a cubic yard is exactly the same price shown by complainant's witnesses, and the controversy with the witness now is whether or not he is giving the company more for sand than he ought, and it is wholly a waste of time.

Q. Now, then, will you hand that memorandum to the reporter and let him mark it as an exhibit?

A. No.

Mr. GUERNSEY: I ask that the witness hand this to the reporter to mark it for the purpose of identification.

The MASTER: It can be read into the record.

Q. In whose handwriting is that memorandum in your hand?

A. I had Mr. Hazard go and verify the figures previously given as far as \$5.85.

Q. In whose handwriting is that memorandum?

A. That is Mr. Hazard's handwriting. I don't know what he has written on it beyond what I have mentioned; that is the reason why I would prefer not having it considered an authoritative document.

Q. Is it all in the same handwriting?

A. You would have to get the handwriting of an expert on that.

Q. How long has this gentleman, Mr. Hazard, been in your employ?

A. Six or seven weeks.

Q. Is that the extent of his employment by you?

A. Yes.

2447 Q. Are you familiar with his handwriting?

Objected to on part of defendants as being immaterial.

A. Well, no; I should say not.

Q. Have you any judgment as to whether or not this paper is all in one handwriting?

A. I have not even read the whole of it.

Q. Is it, any of it, in your handwriting?

A. None that I know of.

Q. When did you first see it?

A. About when you first asked the question, about ten or fifteen minutes ago, the first time I saw that paper.

Q. Now, then, you have testified that you could not from memory give us the contents of this paper while I had it in my hand. How can you tell if you only saw that ten or fifteen minutes ago that it gives the basis you took for this \$10?

A. Because I stated to you before, my recollection was that my first figures ran to about \$5.80 or \$5.85 and I saw the line of your examination, and I thought the best plan was to get the figures direct from the fountain head; so I sent Mr. Hazard around to find them.

Q. Mr. Hazard went to Mr. Wheeler to get these figures since I cross examined you yesterday?

A. I think he did it last night.

Q. I cross examined you yesterday as to the cost of concrete?

A. Yes, and I said it was \$7, I think, I figured it to the company.

Q. In order to verify those figures for to-day, instead of relying on your own knowledge you sent Mr. Hazard to Mr. Wheeler to get a memorandum showing the cost?

A. Yes, sir.

Q. And Mr. Hazard presented you this memorandum?

2448 A. He did.

Mr. GUERNSEY: I would like to read it into the record.

Mr. BYERS: We have no objection.

Mr. GUERNSEY: I will read it into the record and will ask you to state whether I read it correctly, as follows:

"Price of broken stone is \$1.35 for X 2250 #.

Locally \$1.75.

Sand is worth \$1.00 Cu. Yd. Locally \$1.25.

Cement is worth \$1.08 bbl. Locally \$1.25.

Mixing by machine is 60¢ cu. yd.

Mixing by hand is \$1.25 cu. yd.

\$1.75 stone in cu. yd.

\$1.25 sand " " "

\$3.00

1. additional for shrinkage.

\$4.00

1.25 cement in cubic yards.

\$5.25

.60 labor machine.

\$5.85 price cubic yard.

By hand:

\$5.25

\$1.25 labor by hand.

\$6.45 cubic yard.

In a retaining wall being built in this vicinity of concrete proportion 1-3-5 and where it happens that a running foot measures a cubic yard of concrete with 57 pounds steel reinforcement a foot, and one pile to every ten feet with excavation down to 3 or 3½ feet below the surface of the water, the contract price is 10.23 per running foot."

Q. Now, referring to that memorandum do you think your computation as to the amount of sand in the amount of concrete as one-fourth yard is correct?

A. I know it is for my purpose.

Q. I want to know whether it is as a matter of fact?

2449 A. I don't think it agrees with what Wheeler had there at all.

Q. I want to know whether you think it is correct as a matter of fact?

A. It is probably about the best form of concrete you can get, because it has the most stone in it and just enough to fill it in with sand and cement.

Q. Do you think it is correct as a matter of fact?

A. I would make it correct as a matter of fact if I was working with it.

Q. Did you ever do concrete work?

A. I was the first man to do concrete on a large scale in this country. I built concrete work on the largest scale in 1887 and

1888 before this concrete furor that is going on now was ever dreamed of by existing engineers.

Q. You are familiar with concrete work?

A. From the beginning.

Q. Have been for forty years?

A. I won't say forty years; since 1887; I used concrete forty years ago under the specifications of William Farmer.

Q. You use now a 1-3-5 mixture?

A. I do not.

Q. That is what we are talking about?

A. Mr. Wheeler.

Q. What mixture did you take in this concrete we are talking about for this purifying house?

A. Just Wheeler's mixture.

Q. 1-3-5?

A. I don't know whether it is 1-3-5.

Q. So you don't know what mixture you took?

A. In a rough way it is about 1-3-5. I have not seen the specifications. You can get Mr. Dobson, the engineer in charge, to give you all the details.

Q. Does the cost of concrete depend anything on the mixture?

A. Somewhat.

Q. Is it usual to specify different proportions?

A. They do not often get away from 1-3-5.

Q. Would you have the same proportion of concrete mixture in the building on the corner here as you would have in a foundation for the pavement?

A. Whatever happened to be the cheapest would probably be sand or stone, would probably be predominant in the foundation for the pavement. The cheapest and meanest form is what is put in the foundation for buildings.

Q. That is what you said you figured in this foundation for this same building in your testimony yesterday?

A. Yes.

Q. Now, can you tell us whether in this 1-3-5 mixture which you have referred to, one fourth yard of sand is used to each yard of concrete?

A. It would be if I were mixing it for certain special purposes.

Q. Do you know anything about the ordinary practice?

A. I have practiced for years and years myself.

Q. Then what is the ordinary practice?

A. The ordinary practice I told you was about 1-3-5.

Q. How many yards of sand does that take for each yard of concrete?

A. The 1-3-5 mixture measured in yards, gives nine cubic yards, but there is a shrinkage there, stated by Mr. Wheeler, to be about \$1. in \$3.; that is, about one-third apparently; so that Mr. Wheeler expects to get about 6 cubic yards of concrete virtually out of nine cubic yards of material, I should judge. You can get all these figures from my assistant, Mr. Dobson.

2451

Q. I want to get at what you know about it. Let me ask

you this: take your 1-3-5 mixture, one part cement, three parts sand and five of stone, put it in yards, one yard cement, three yards sand and five yards stone; is it the result of your experience if you mix one yard of cement, three yards of sand and five yards of stone you will get six cubic yards of concrete?

A. If I remember rightly, it was nearer seven. I can't tell without referring to my figures, and the specific figures on foundation work I have in New York City now in my office.

Q. You say then it would be six or seven yards?

A. No, I think it is nearer seven yards.

Q. What sort of a job is this Mr. Wheeler bases these figures on; what is the amount of concrete he is mixing?

A. I don't know, except that it is very large.

Q. He is mixing it in large quantities and putting it in in large quantities?

A. Yes.

Q. And is doing mixing by machine, is he not?

A. I presume in part; I am not certain on that, possibly the whole and possibly only in part.

Q. Do you know from your experience whether concrete costs more when it is mixed in small quantities put in place in small quantities, like 3-1/3 cubic yard-, than it does making a bridge as large as Mr. Wheeler is making?

A. The \$5.85 given by Mr. Wheeler as the cost of concrete appears to me to be machine work.

Q. He says that on his memorandum, don't he?

A. Yes.

Q. Well, now, let us get to the question.

2452 A. The labor would cost probably as much more—60¢ more.

Q. He puts it at \$1.25 for labor in hand work?

A. Yes, I see, by hand.

Q. Now, then, to go back to my question, in your judgment does concrete work in large quantities such as Mr. Wheeler is doing on the bridge here, cost as much as concrete work in small quantities such as we are estimating here?

A. Well, the concrete that is dumped in a ditch for a foundation probably costs less than carefully inspected work which Wheeler is bound to do on the bridge, even on a large scale.

Q. They use the same kind of cement?

A. Not always; there are certain natural cements.

Q. Have you used natural cement in this case?

A. No, in this case first class Portland cement.

Q. Let us go back to our question, which was whether in your judgment concrete in large quantities such as Mr. Wheeler is using in this bridge, costs as much in place as concrete in small quantities such as we are estimating here?

A. If of the same quality concrete in large quantities can be produced at a lesser cost for labor.

Q. Is that the only thing where the cost is less?

A. Sometimes buying in larger quantities, cement, sand and stone will give you a concession in the price.

Q. Now if you have taken *taken* for your estimate here Mr. Wheeler's hand mixing your base fixture would have been instead of \$5.85 \$6.50, wouldn't it?

A. \$6.45.

Q. You took labor at 60¢?

A. Machine work at 60¢.

Q. If you deduct that from \$1.25 you will have 65¢?

2453 A. Yes.

Q. If you add to that the \$5.85 you get \$6.50?

A. I think \$6.50 would be near enough.

Q. That would bring you up to \$8.50; by adding your profit of \$2.15?

A. Well, there is a very large margin of profit there anyhow.

Q. When you made your estimate on this particular three cubic yards, how much of anything did you allow us for forms?

A. I will tell you, that the forms in that case would be two boards propped along side of each other—

Q. I understand that. I asked you how much you allowed for them?

A. Will you allow me to finish?

Q. Yes.

A. The forms in this case, for a standing up curb, would be a couple of two inch plank standing up along side of each other and held together and braced so as to keep them steady. These would be moved along as the curb was built after the matter had been rammed, and when the work was done, if the lumber was all worn out the cost for material for the whole business would probably be a dollar or a dollar and a half.

Q. That don't answer my question. I asked you how much you allowed?

A. \$1 or \$1.50.

Q. Do you know how much?

A. No, because it is in a lump sum here.

Q. It is in \$10?

A. No, it is in the total.

Q. What?

A. Of \$30.

Q. That is made up of three yards at \$10 a yard?

A. About.

Q. Now, then, you take two planks how long?

2454 A. Well, I don't know what your standard lengths is out here. In New York state, the upper end of the state, 13 feet long that would be the length I would like best for a two inch plank for that sort of work.

Q. Then for your 90 feet you would have to start and stop about seven times in that 90 foot partition?

A. Oh, no; it is practically moving a trough on the bottom.

Q. I know, but you have to pour your concrete and you testified

of ramming it, and then you have to let the concrete set before you can move the planks?

A. No, not in this case; this kind of a job, the finishers will follow right along; you wouldn't have any trouble with this at all; you could pick up your planks and go along in a few minutes.

Q. How long does it take concrete to set so that you can remove the forms?

A. Well, where it is rammed in this way, by the time you get done with your ramming it will stick together in a loose sort of a way.

Q. Did you ever see them take the forms away as soon as they got through ramming?

A. Yes.

Q. How long after your concrete is mixed do you have to pour it to get good results?

A. Generally at once.

Q. So you would have to mix a batch and pour it 13 feet and then you would have to ram it and remove the boards, and what would your concrete mixers be doing in the meantime?

A. Standing around.

Q. You have estimated a job that way on the basis of continuous machine work?

2455 A. No, I was giving you \$10 instead of seven.

Q. You would have to mix this concrete by wheel barrow fulls wouldn't you, to do it your way?

A. I would try to get it mixed about 13 foot, the length of the boards. While I haven't taken the trouble to figure that up, because of no possibility of being obliged to build the thing.

Q. That would run your labor cost up very materially, double that at least?

A. I wouldn't say that; I know the labor would cost a good \$1.25; you are perfectly right in sticking to a \$1.25 or something more perhaps. That's the reason I let it go at \$10.

Q. Now take the next item, floor supports, what are they?

A. They are given here 26932 feet, board measure.

Q. What were they, joists?

A. Timbers.

Q. Were they joists under the floor, ordinary floor joists?

A. I do not recall whether these are iron or not shown here. They are timber used in the floor, accepted as such, I think all together intended to be joists or supporting beams perhaps, running from iron column to iron column longitudinally. At any rate I accepted it at \$27 then the labor put in at \$10 giving a total of \$37, or about \$996.48 for the floor supports in place.

Q. You figured here the labor of putting the floor supports in place, five times what the labor is in framing the roof then?

A. There was something about that—I think they were twisting in and around four purifiers and did it very awkwardly, or had to do it very awkwardly.

Q. Now, your doors, how did you figure these doors?

A. All these doors, the prices for them were gotten by Mr. 2456 Dobson or Mr. Hazard and I think by both, worked out by them. I notice four Batten doors \$24, one panel door \$16; and 70 plain windows—

Q. We will stick to the doors for a minute. You don't know how they got those figures \$24 and \$16?

A. Well, I know in a general way, because they talked them over with me.

Q. Well, how was it, don't you remember?

A. I made inquiry of some of the planing mill men and lumber dealers. I remember getting the following figures in regard to doors, a certain three panel door about \$12, a sliding door about \$18, and there were windows—

Q. We will stick to the doors?

A. Then there was a sliding barn door—Will you allow me to explain.

Q. I have no objection myself, except I don't want to be charged up with this time.

Mr. BYERS: I submit counsel has been badgering this witness long enough.

A. I also found a double hinge front door, \$16, and then I put these young men, as these are trivial matters, to go around and look at the doors and the shingles out around there—most of them are rotten anyhow—and then I got the price new from the planing mills and allowed them about the new price and I gave them the batten doors \$24 and the panel door at \$16. I think they submitted them to me and I said, let it go at that; don't waste any more time at it.

The MASTER: \$16 a piece?

A. \$16 for one panel door and \$24 for four batten doors, and I let it go at that, making a total of about \$40 for the five doors.

2457 Q. Now, you stated in the last answer that you gave that most of them are rotten anyway. Please specify just what that referred to?

A. I used the word rotten in rather a slang sense. I mean by that they have that peculiar ancient, antiquated appearance; they appeared to me a little out of line, and rather rough things to begin with.

Q. They appeared to you about normal in view of their age?

A. It looks as though there had been a very large amount of paint put on them.

Q. Did you yourself get those figures you just referred to?

A. The figures I gave you I went out personally—the figures finally used—I think Mr. Dobson more particularly was the man that got them, being locally informed.

Q. Now on the windows, how much did you give us here for \$70 windows?

A. Again the windows were looked up by Mr. Dobson and Mr. Hazard and given at \$140.

Q. They got these figures as they did on the doors?

A. They got them.

Q. And the box windows, did they attend to that too?

A. Yes.

Q. How much was that amount?

A. \$306.

Q. For the five box windows \$306, isn't that a little off?

A. There is probably some typographical error there, though I find these gentlemen paid a good deal of attention to it. Finally your list speaks of 510 square feet and five box windows, which would mean your windows must be ten feet wide and ten feet high, in which case if your statements are correct, which of course is an absurdity—the probabilities are that the gentlemen looked 2458 and found the absurdity, but did not correct it here.

Q. You have no personal knowledge about that?

A. No, personal knowledge.

Q. Sills, cut stone, 34 cubic feet; who made the estimate on that?

A. I think Mr. Dobson is responsible for that.

Q. How much is it?

A. \$1.50 cubic yard \$51.

Q. Now lintels, cut stone?

A. The same thing, \$1.50.

Q. Who made the estimate on that?

A. Dobson.

Q. How much did it amount to?

A. Mr. Dobson got the price and Mr. Hazard made the estimate.

Q. That is, Dobson furnished the price and Hazard did the figuring?

A. In this case, yes.

Q. Now, then, you got some iron there, 2555 pounds, what is that used for?

A. Personally, I don't know; it must have been identified for it was introduced as three cents.

Q. Who made the estimate on that?

A. Mr. Hazard, and I furnished the price, three cents.

Q. Furnished it without knowing what the iron was used for?

A. I did at the time; I don't remember now.

Q. How much is the total?

A. \$76.65.

Q. Now, painting, who furnished the estimate on that or price?

A. It is difficult to say; both of my assistants were interested in that; it was a matter that bothered them a good deal in finding out.

2458½ Q. Did you furnish a price on it?

A. They worked it out between them. The total is \$80.22. Painting brick work and wood work \$39.80.

Q. Now, pit for piping, who furnished the figures on that?

A. I furnished the figure \$16. and the computations were made by Mr. Hazard \$2.88.

Q. What sort of mortar is used there?

A. I never examined it; I presume old fashioned mortar, maybe cement.

Q. Have you made any difference between the ordinary mortar and cement mortar in the estimate?

A. No—just — I made no difference between the hard red stock brick and your mud brick; I have taken an average.

Q. You figured the brick in place in this pit \$16 a thousand?

A. Yes.

Q. Did you figure any other item of cost in that pit?

A. Not unless the form of excavation.

Q. Was it or wasn't it?

A. At the beginning of page 18 excavation is given 189 cubic yard-, 35c; if the pit was included in that excavation, of course it is included.

Q. Do you know whether it was or not?

A. I do not.

Q. Was anything else involved in the pit aside from the brick and excavation?

A. There is nothing computed.

Q. Now, the driveway; who got the figures on that?

A. I gave the figures \$16. Of course it is vastly too much, because it is a lot of poor brick set on edge.

Q. Who made the figures?

A. They were made by Hazard, \$9.39.

2459 Q. And were these poor brick as you stated paving brick?

A. Oh, just common brick, you know.

Q. You referred to them as a lot of poor brick set on edge?

A. Vitrified brick is the paving generally all over your works there is very poor; it is a collection of odds and ends stuck in.

Q. Can you tell us whether those were vitrified brick or not?

A. I do not; but I know \$16 is way up.

Q. When you made the statement they were a lot of poor brick you didn't know whether they were vitrified or not?

A. No.

Q. Now, then, this next item here, who made the figures and gave the unit prices on that?

A. The unit price is \$27 a thousand and \$10 for labor, are my prices.

Q. \$37?

A. Yes.

Q. What is your total?

A. One goes at 49c. and the other at 18c.

Q. What is your total?

A. 67c.

Q. For that other item of brick laid on edge?

A. 56 square feet, 12½, \$6.95.

Q. Now, how did you compute the stairs?

A. These are the stairs at the north end of this building. I had occasion to walk up them to go on the purifying floor. They were very handsomely painted in red, but if you would run your hand underneath the rails at the time I was there, you will find it all rotted out, and the treads were very much of the same character,

and the price of three treads, 15c. 45c. and 16 treads at 40c. \$6.40 computation was made by Mr. Hazard or Mr. Dobson.

2460 Q. What was the total for them?

A. \$6.85—not worth anything to amount to anything, they are no good.

At this time an adjournment was taken until 1:30 p. m.

2461 1:30 P. M., THURSDAY, August 17, 1911.

WILLIAM D. MARKS being continued on cross-examination by N. T. Guernsey, Esq., testified as follows:

Q. Prof. Marks, do you recognize the photograph, Exhibit 40, as a photograph of this rotten stairway you have just referred to?

A. Yes, and recognize also the clever way in which the rottenness of the bannister has been covered up by paint, also some broken steps where the men are standing, or one broken step I should say.

Q. You can tell from the photograph that the bannister has been painted and that that covers up some rottenness there?

A. I did it by personal inspection, by running my hand over.

Q. I was asking about the photograph?

A. I could not tell from the photograph.

Q. Was the bannister painted before or after this dry rot you refer to developed, or do you know?

A. It was I think painted anew immediately after my first visit to the works and a request on my part that I be given pieces of the bannister for use in the court room which was not granted?

Mr. GUERNSEY: We offer this Exhibit 40.

Objected to as not having been properly identified, irrelevant and immaterial.

Q. I suppose at a cost of a dollar or so that bannister could be replaced couldn't it?

A. I have not estimated it. It would not be very much.

Q. Now what did you put these brick steps in at?

A. 189 bricks at \$16.00 per thousand, \$3.02.

Q. And the platform?

2462 A. 162 feet board measure at \$37.00 per thousand, \$6.00.

Q. Now will the total of these items that you have given me in connection with this building equal \$6,904.92 which you have given as the structural cost?

A. Yes, sir. I beg your pardon, it was not the structural cost, \$6,904.92, the structural cost is \$7,768.04 being the actual contract price plus 12 and one half per cent.

Q. What do you mean by contract price, the sum of these items which you have estimated?

A. The sum of these items on the assumption that on the average the work that was done by contractor, not necessarily the whole of it.

Q. And what profit did you estimate the contractor has in this \$6,904.92?

A. I didn't estimate it in that way. I have tried to give the contractor about \$3.00 profit on every thousand of brick and about

\$1.25 and \$1.50 on every cubic yard of concrete. It seems that perhaps a dollar would be nearer the actual practical facts.

Q. Now passing to the contents of this house you first take the steam hydraulic elevator.

A. What page please?

Q. Page 25 of Exhibit 15.

A. That is page 14 of my report Exhibit 23.

Q. Now you put that in at 500 and depreciate it \$450?

A. Yes, sir.

Q. How long since that elevator has been used?

A. I don't know.

Q. Do you know whether it has been used in the last week or two weeks

A. I don't know.

Q. Was there anything to prevent its being used?

2463 A. It was not us-able at the time one of my assistants went out there and asked to see it move?

Q. Do you base that statement on what your assistants told you?

A. I do.

Mr. GUERNSEY: I move to strike out the statement as hearsay.

Q. What is there to prevent its being used?

A. The fact that its place has been filled by a bricket oxide conveyor, which is presumably put in for the purpose of reducing the cost of carrying up oxide.

Q. That would not prevent the use of this steam hydraulic elevator would it?

A. For economical purposes I presume it would.

Q. By that you mean it would be more economic to use the bricket oxide conveyor?

A. Certainly more convenient, yes.

Q. The steam hydraulic elevator is the only duplicate or reserve apparatus for use in the event that this oxide conveyor is either out of repair or for any other reason must be temporarily out of commission isn't it?

A. Yes, but then you know these oxide boxes are only occasionally filled.

Q. And what is the physical condition of this steam hydraulic elevator, good or bad?

A. As it was not necessary I did not examine it closely, it looked as if it had fairly decent use what I saw of it.

Q. And looked as if it could be used any day if it were not that they used the other which was more convenient and more economic?

A. No, it did not to me.

Q. What was in it as it appears there that you observed there that would interfere with its use?

2464 A. The fact that I thought it had been practically abandoned as an active operative business machine caused me to ask my assistant to go out and investigate it.

Q. Take your oxide conveyors, where are these produced?

A. My memory is bad on that subject, there is a firm of three young men in Philadelphia what started all sorts of link belts. I

think they started under the name Link Belt Engineering Company and while I did not examine this closely it looked to me something like their work and I thought that probably it came from there.

Q. Is that the only place where such conveyors are purchaseable, only reasonably convenient place?

A. Well it is one I would naturally turn to for that sort of thing.

Q. What others are there to which you could turn?

A. Be impossible to make the effort of memory. I would find some trad- paper and look it over if I wanted to get away from the Link Belt Engineering Company.

Q. When did you purchase the last one of these conveyors you purchased?

A. Never bought one in my life.

Q. Do you know what one ever sold for?

A. I do not.

Q. Did you ever make one?

A. Never made one.

Q. Eve- use one?

A. You mean the bricket?

Q. Yes.

A. No never used one.

Q. I see you take 5 per cent annual depreciation on these conveyors?

A. Yes, sir.

Q. Where did you get that?

2465 A. From the date of erection given on them—

Q. That would not give you your annual depreciation would it?

A. On Exhibit 15 on page 25 at the end, one bricket oxide conveyor manufactured by the Link Belt Engineering Company, and I had forgotten that, with one five horse power engine installed in 1905—it was just as I guessed it is a link belt outfit.

Q. But my question was how you hit on five per cent annual straight line depreciation?

A. For these?

Q. Yes.

A. Because wherever you have any of these conveyors the practical engineer will tell you that they are peculiarly subject to wear and tear owing to the nature, the grinding nature of the material which they have to handle and five per cent covering as it did a 40 foot frame work leading up above the top of the eaves having this series of buckets, having an engine having the counter shaft, having a belt, if I remember rightly, struck me as being a very moderate rate. It gives about 20 years' life to the thing which is quite a life for an apparatus of that sort.

Q. Now the purifying boxes are what?

A. They are cast iron boxes held up on iron posts, four of them in a row, and they are used for the purpose of allowing the gas to pass through a mixture of iron oxide usually with chips, some thing of that sort to render the mixture somewhat porous.

Q. Why do you pass it through this mixture?

A. On the assumption that the sulphurated hydrogen which is

disagreeable in its odor will be absorbed by the iron and that the gas in its purified state ready to burn will be passed on to the holders.

Q. Where can these boxes be purchased?

2466 A. Almost anywhere where man build gas works. They are heavy castings cheap on account of their size.

Q. What does one of these boxes weigh?

A. I don't think I have figured it at all, I am sure I did not. I put it at about four thousand dollars apiece.

Q. Who manufactures them?

A. Well there is R. D. Wood & Co. of Philadelphia. Then there is this tremendous gas manufacturing concern in Baltimore, then there is a Pittsburgh concern whose name I cannot recall. Then there is Stacy of Cincinnati, or Louisville, I forget which. Then there is the old firm, I don't know whether in existence or not now in St. Louis—well no trouble anywhere you go you could get anybody to take the job and do it — very low rates because there is a lot of *itorn* in it.

Q. When did you last buy some of them?

A. I think the last one I bought was a little one for North Carolina, I have told you the name of the town.

Q. Durham?

A. Durham, North Carolina.

Q. What size was it?

A. I have forgotten it and the price, haven't the faintest recollection of anything except the fact.

Q. Do you know of the price on any of these boxes for which they have actually sold since that time?

A. Since Durham?

Q. Yes.

A. I can't recall at this moment that I do.

Q. You never bought but one in your experience?

A. Oh, yes.

Q. What others have you bought except the one at
2467 Durham?

A. I could hardly say—for instance I think it was Stacy & Co. that did the work in St. Louis, they did a lot of it, taking care of a million cubic feet or more a day out there and I have forgotten as well about the price there.

Q. Been any variation in price in forty years?

A. Very little. That is the odd part of it.

Q. You are confident of that without knowing any prices at which things sold with one exception in the last forty years?

A. Oh I have had occasion on account of estimates to ask prices again and again and have them furnished to me.

Q. What do these center seal valves cost?

A. I didn't figure it at all, I threw it along with the four purifying boxes.

Q. Do you know what would be a fair charge for that?

A. Not without weighing it and putting a price at about three and

a half cents a pound I should say. If I knew the weight I would tell you what the thing cost. Three and a half, perhaps four cents.

Q. What is this 16 inch cast iron pipe, that is the next item?

A. Is a pipe that connects up underneath these purifiers.

Q. You put that in at what?

A. At \$2.10 a foot.

Q. That is the same rate you put cast iron mains in the street isn't it?

A. Yes, sir. I allowed for the setting of this up on its piers and making its joints there just as much as I would have allowed for digging a ditch and sticking it under ground in the street.

Q. As a matter of fact that would not come anywhere near covering the cost of it would it or have you had any experience in doing that kind of work?

2468 Q. You think then that cast iron pipe around these boxes could be put in at a lower rate per foot than you could the cast iron pipe in the streets if run a long distance?

A. I am talking about straight pipe, not talking about bends and such things, talking about straight pipe.

Q. I am talking about the pipe that was there, you estimated there.

A. 327 feet of straight pipe.

Q. Where are the bends and the other things estimated?

A. Along with the boxes at \$4000.

Q. Do you buy them from the people from whom you get the boxes?

A. Usually the whole thing comes ready to set up, ought to.

Q. You say usually, tell us one case where you know that happened within the last thirty five years?

A. In Durham.

Q. Tell us another one?

A. I think Stacy & Co. sent out to Fostoria the same year. That was ten years ago.

Q. All set up?

A. No it was not set up, it was already to set up. It would not make any difference really though.

Q. Will you please turn to sketch No. 7 in Exhibit No. 16. Does that represent some of this piping?

A. That is it.

Q. Now looking at the connections or specials do you still say that that piping can be put in place at the same price as sixteen inch pipe in the ground?

A. The straight pipe can be.

Q. I am not talking about straight pipe, you didn't separate the straight pipe from the other pipe?

A. Yes, I did, I excepted that.

2469 Q. This is 327 feet you have here?

A. Let it go as straight pipe.

Q. That as a matter of fact includes all of the piping doesn't it?

A. That I don't know. It was put in here by the building and

I just simply let it go at that, accepted it without dispute as they seemed to be very careful and very accurate in their work.

Q. Does the inventory show whether it is straight pipe or whether pipe that was actually there?

A. It reads this way, 327 feet six inches of 16 inch pipe at, and 2 sixteen inch valves at, and I accepted it as straight pipe and I had included probably the bends and center seal in my prices for the purifiers the \$4000 estimate.

Q. What did you include then in your—you just included straight pipe in your estimate on the pipe?

A. I regarded it as straight pipe and let it go at that.

Q. You didn't take a practical estimate of what it would actually cost to do this kind of work?

A. Yes, I did.

Q. Where did you do it, what figure?

A. In allowing for all that kind of work for \$4000.

Q. How much did you allow for it?

A. \$4000 for each one put in.

Q. How much did you allow for doing the work?

A. I lumped it.

Q. Made a running guess at it?

A. No.

Q. What did you base it on?

A. Looked up purifying boxes of about the same capacity and general size elsewhere.

2470 Q. Where? Q. Some catalogue?

A. No, appraisement from New York. I don't recall where I got it, it is my opinion let it go at that.

Q. It is some inventory you got in New York you used this morning where you got this information?

A. No, I think not, probably I think I looked there. It was the Cleveland inventory. By the way, did you want me to bring that around?

Q. I believe I asked you for it if you have it here.

A. I will bring it around if you want it.

Q. Where did you get the information in the New York Inventory, get that from somebody's else inventory?

A. If I remember rightly I got it from Tom Rowland's inventory. I knew him very well when he was alive, got figures of most the different sizes there.

Q. When did he die?

A. He died long before 1905.

Q. Is there any difference between purifier boxes set up in Des Moines and one set up in New York?

A. Yes, I suppose there is some.

Q. What is the difference in freight?

A. Well you would not very probably get any purifier box, you would get what you wanted here through some concern in St. Louis, big iron foundry establishment or in Minneapolis or St. Paul, so I could not tell what the difference in amount would be.

Q. Do you know any foundry from which you could buy them in St. Louis or Minneapolis or St. Paul?

A. No, but if I wanted one I would know in about a week.

Q. You would have to find that out before and something about prices before you know what they were worth in Des Moines?

2471 A. No, I would know pretty well about what I ought to get them for.

Q. As a matter of fact as near as you can tell this traces back to some estimates Tom Rowland made in New York or somewhere?

A. No, it traces back, I have been thin-ning since you began talking about it, I think it traces back to Cleveland to an estimate which I made there and in which one of my assistants very carefully computed all the weights.

Q. Was he city engineer there in Cleveland?

A. No, I was trying to think, he was an Englishman, I was trying to think of his name but I can't recall it.

Q. Did his computation include something on account of pipe?

A. He computed everything all through and took a lot of trouble with it.

Q. Out that into the box instead of the cost of the pipe?

A. I think yes, I could only guess about it, my memory is not good. I think those boxes in Cleveland came to about \$6000 apiece.

Q. What was the size of them?

A. The boxes in Cleveland?

Q. Yes.

A. Just speaking from memory I think they were about either 25 by 30 or 25 by 25 or 30 by 30, I can't recollect which.

Q. And how deep?

A. They were unusually deep, that is compared with the old fashioned, they were six or seven feet deep and used for oxide and if I remember rightly the oxide was on two trays one above the other.

Q. I see you have depreciated these things about \$6.440. These boxes are made of cast iron aren't they?

A. Yes, sir.

Q. The pipes are made of what, cast iron?

A. Cast iron.

2472 Q. Are the boxes worn out?

A. No.

Q. How thick are they?

A. They will not wear out. I should judge, I am only trying to remember to oblige you, it is a matter of no importance, about three quarters of an inch cast iron.

Q. How much is that hoisting apparatus worth that is in there?

A. I will give you how I figure it if you like.

Q. All right.

A. I figured it at \$1,500.

Q. Does it appear here on page 14?

A. On page 14.

Q. I mean the apparatus for hoisting the covers of these boxes?

A. Oh that was included along with the boxes.

Q. Well but how much was it?

A. I have not a very distinct recollection of it. It is a very crude piece of apparatus and rolled along on rollers if I remember rightly.

Q. How much is it worth, what did you put it in at?

A. I didn't put — in separately. I as I told you lumped the whole business at \$4,000 to the box and I think these boxes were seven feet deep too weren't they?

Q. Yes, that is what your report says, I assume that is correct. So you can't tell us what it would be worth to do this piping, you can't tell us what this hoisting apparatus is worth and you only have on the purifying boxes a sort of an estimate based on some other man's estimate in some other case?

A. Well I ought to say you know that I supervised the other man's work and that he did the mechanical figuring in the matter.

It was not his estimate, it was mine except as he acted as an adding, subtracting and multiplying machine.

Q. And that is what you took as a basis for your figures here?

A. Yes, exactly.

Q. And what you have there in the Cleveland case which I suppose is what you refer to, am I right?

A. Yes, sir.

Q. Was not the result of any transaction but an estimate you were making there for use in the appraisalment where you were to be a witness?

A. Yes, sir.

Q. So that this is not at all based on any actual transaction?

A. Well I didn't try it of course. The books are the best evidence as you know in all of these cases and would be very easy for you to tell me at once and the court too all that is necessary to know about this matter if the books are properly kept.

Q. I presume we could inform you about most everything, but I am trying to get at the information you had.

A. Well the books are the best evidence if properly kept and properly interpreted and are the only evidence, the rest is almost waste of time.

Q. Aside from the books?

A. Almost all through the whole trial has been a waste of time if you have the records.

Q. So you regard your estimates where they are not based on the books as almost a waste of time?

A. Not any more than I do others.

Q. But you regard them in the same way in which you regard others as practically a waste of time is that right?

A. If the books were here and produced it would be a most decided waste of time on my part and the part of everybody else estimating on it to put in an estimate.

Q. Why do you say you regard it as a waste of time, because in your judgment you can't tell what these things are worth without going to the books?

A. Oh I don't mean to quibble about the thing. The books are actual records as anybody knows. An estimator can make an aver-

age if he has had experience but there may be possibly some peculiar circumstance affecting the purchase of each piece of apparatus which would make it differ from the average, might get a series of averages and not be any particular one right, the average be pretty near right and yet be wrong on every detail.

Q. That don't answer my question. Do you mean your estimate is of practically no value if you cannot get hold of the books or what do you mean? Do you mean it is not possible for a man who is an expert and who knows this business without the books to determine the value of this property?

A. I certainly do not.

Q. It ought to be possible for a man who knew the business, who knew what this sort of machinery cost and has been buying it and selling it to tell what it was worth without referring to the books ought it not?

A. Not exactly and precisely as he would if he had access to the books.

Q. This was bought seventeen years ago. You have depreciated it 34 per cent haven't you?

A. Yes, sir.

Q. In what respect has it failed to be just as good as it was the day it was bought for the use to which it was put?

A. Do you mean will it purify gas just as well today as the day it was bought?

2475 Q. I want to know whether in any respect this property is not as useful today for the purpose for which it was bought as it was on the day it was bought?

A. It is not as useful today as the day it was bought because it is approaching inadequacy.

Q. Then this depreciation is solely on account of inadequacy?

A. I didn't say so.

Q. Well is that true or not?

A. It is also becoming obsolete as I think that other materials than cast iron will probably be used for purifiers on a vast scale in which case I think will be maybe not very far away.

Q. What other materials are used today?

A. They are building purifiers nowadays out of doors and out of concrete and some of them seem to be doing very well. There is still a dispute which would make an engineer hesitate somewhat before building a concrete purifier but some of them have begun today to build them.

Q. Did you know that the largest purifiers of this kind which were built in New Orleans are now being torn down and abandoned?

A. Of what kind?

Q. The ones you just referred to, concrete.

A. No.

Q. Would that modify your judgment only as to whether this ought to be condemned because probably we will some time use concrete?

A. I would like to know who the engineer or alleged engineer was that put that up before I expressed any opinion.

Q. Now so far as physical condition of these boxes is concerned they are just as good as they ever were?

A. Physical decay is apparently non-existent, I looked them over.

Q. Would there be any trouble in adding another set of
2476 boxes if the capacity of the plant required it?

A. No. But the chances all are that you would have to get at that work there pretty soon putting in more purifying surface, you are close to the edge of it there and if you do go about it you have got to build new buildings there, larger buildings and probably put in larger purifiers and larger surface and you might in my opinion be glad to dispose of these if you could and build the whole thing up on a larger finer scale than you have there.

Q. Is that the basis of your taking off 34 per cent?

A. On which I give it fifty years life, it is the same thing.

Q. Then you take straight line depreciation?

A. Oh yes. Straight line depreciation is purely a commercial matter. I don't say because I put in straight line depreciation for commercial payments that the depreciation that actually occurs in a straight line? It is only a question of getting uniform payment you know.

Q. So to sum this thing up these boxes are just as good physically as they ever were.

A. Yes, sir.

Q. They may be used indefinitely?

A. Yes, sir.

Q. Indefinitely because if additional capacity is required it may be obtained by getting additional boxes without abandoning those.

A. Not very well because they are not deep enough. If you get in new boxes you will probably put in deeper boxes.

Q. These are what you characterize very deep in Cleveland?

A. I mean as compared with the old style.

Q. What depth boxes are being used now, would you recommend here?

A. I have not given the subject any thought at all.

Q. Then are you sure that you would want to put in deeper boxes?

2477 A. I have only a general impression were I paid for taking the trouble to think about your concern I would be likely—

Q. To evolve some thoughts?

A. Suggest deeper boxes.

Q. And you did not know that the eleven foot boxes are now being abandoned?

A. I would attach no importance to it until I knew who the engineer was that was abandoning them.

Q. In other words, you haven't any judgment of your own about it, you would want to know whether the engineer was a man in whom you had confidence and would attach importance to it or not accordingly?

A. No I on the contrary have very decided judgment as regards some of the so called engineers of this country. I have most emphatic opinions on that subject?

Q. I didn't ask you for your judgment of engineers.

A. And that would assist me in deciding whether I would attach any importance at all to any move they might make.

Q. That covers the contents of the building I believe. I don't want to run through all of these things if I can avoid it. Can you tell us, take the firebrick shed for instance how many brick you gave us credit for there, page 27, Exhibit 15?

A. Page 27, building 1-C?

Q. Yes.

A. Where you have bricks 389 I have brick 315. I don't see anything else.

Q. I see a new item in here, corrugated iron walls. What did you take on that, the unit price?

A. No. 20 corrugated iron?

Q. Yes.

A. 1.2 squares at \$7.50 a square.

2478 Q. Where did you get your figures on that?

A. Mr. Hasek and Mr. Dobson went out and interviewed the iron men of this town and got their prices.

Q. And the same thing with regard to the roof, corrugated iron?

A. The same thing with the corrugated iron. I know that they went out and found local prices and local prices in small quantities too.

Q. I see this is brick in cement mortar, did you take the same old price, \$16 a thousand?

A. \$16.00 a thousand, \$5.04.

Q. Who got figures on the roof supports in this building, these young gentlemen?

A. The roof supports?

Q. Yes.

A. There was an old column that would probably have gone to the scrap heap they had used for one corner, cast iron, 1311 pounds, I think it was cast iron I don't know, put in at three cents by my order giving \$39.00. Then there was wood there which was taken at \$37, labor and wood.

Q. This column held the shed all right?

A. It was a good deal of a column for a thin iron roof, put in there because handy and apparently no use for any other purpose, looked like it anyhow.

Q. Doing the work all right?

A. Oh yes, carry the whole building on top of it.

Q. In any of the buildings did you allow anything for clearing site and staking out?

A. Never.

Q. I notice in this next building here there is cellar excavation, what did you put that at?

2479 A. Kindly give me the page.

Q. Page 30.

A. Excavating foundations 161.28 cubic yards at 35 cents, cellar 945.86 cubic yards at 35 cents. That could probably be done with horse work at about 15 or 20 cents a cubic yard, but trying to be on the safe side I instructed Mr. Hasek who did this to put it in at

35 cents. You can take a horse and scoop and get most of it out at 15.

Q. I may as well refer to it now, this building you have used the so called Summer's method in getting at your depreciation. What account does that take of the actual condition of the building?

A. It takes into account three divisions, good fair and bad. And gives a different ratio of depreciation, percentage of depreciation for each one of these three. It also gives a different percentage of depreciation as the number of years increase. In other words the depreciation does not appear to increase uniformly.

Q. Now take your first proposition and stick to that for a minute. Take the purifier house, did you take this man's rule for good, fair or bad conditions?

A. It is either good or fair.

Q. Can't you tell us which?

A. No, I can get the copy I used if you wish me to bring it here.

Q. That won't tell us which condition you took there?

A. Yes it will give my percentage, 25 per cent in eighteen years for a brick building, then I can tell you what it was

Q. How does Mr. Summers make up this 25 per cent for eighteen years?

A. As I understand, and in this I may be at fault, that it 2480 is a matter of the judgment of men experienced in taxing and assessing buildings and that sort of thing that he has availed himself of. Mr. Summers himself explains at a great deal of length.

Q. Who is Mr. Summers, what is his business?

A. Mr. Summers is a gentleman who devised a system of taxation in which the land and the buildings are separated and this system of taxation has become the officially recognized system in Cleveland where it first came to my notice and has also been adopted in New York City at least insofar as separating the assessment on the land and on the buildings. It has also been taken up in a number of other places which I can possibly find for you but cannot recall now and I recall now the matter was discussed at great length in Cleveland and it was decided that the Summers' system was official at least the proper system to use in depreciating buildings.

Q. Now to go back again who is Summers and what is his business?

A. He is an expert on taxation and on depreciation.

Q. Is that his profession or avocation?

A. That is his profession and avocation. He goes from city to city superintending all this assessment and taxation.

Q. How long has he been doing this?

A. I never asked but the first I heard of him, the first mention I heard of him was along about 1905 or 1906 along about that time I think. How much earlier he has been at it I don't know.

Q. Do you know whether he has ever had practical experience in buildings or anything which related to buildings?

A. Well I only know—I don't know his life at all, I don't even know the man. I know the approval of his methods by these bodies engaged in taxation.

Q. You don't know the source from which he took his figures?

2481 A. I do not.

Q. Now then these figures of course give a big depreciation in the early years as you said?

A. Well I won't say that, but it is not a regular depreciation going on down.

Q. You say you take off more earlier years than later years relatively?

A. It so appeared to me.

Q. So it would give less valuation in this case, lower than your methods?

A. Will you allow me to bring that pamphlet in for the benefit of the Master?

A. I don't suppose I have any control over your actions and you can take it up and discuss it all you please.

A. I confess frankly while using it my memory is not good for all things and this Summers' method, the figures of it.

Q. Your memory is good for the adoption of this method which will give you lower valuations than ordinary methods give you?

A. You mean lower depreciation?

Q. A bigger depreciation.

A. Why no I think the reverse is true, for instance here eighteen years at two per cent or two and a half per cent would give you from 36 per cent upwards depreciation while Summers give you only 25 per cent.

Q. And still he takes off more in the earlier years as you have told us relatively than he does in the later years.

A. Irregular. He assumes his depreciation to be due to a peculiar physical law which seems to peter out along towards the end.

Q. And the big depreciation comes first?

A. I won't say the big depreciation, the larger depreciation.

2482 Q. So if his larger depreciation is not as much as this two or two and a half per cent, what do you think of the two or two and a half per cent as depreciation if Summers is right?

A. If I knew nothing of Summers' system, if I did not know the respect and credence which it has gained for instance in Cleveland I would be likely to take two per cent annual depreciation being 36 per cent instead of 25.

Q. And take it off two per cent straight line?

A. Straight line, yes.

Q. Not on a sinking fund basis?

A. Oh no.

— So that your opinion is that Summers is really a little too low?

A. Not a bit. It is that I don't know enough about that particular matter of depreciation to dispute Summers if it meets with public approval although I don't believe the building will live over fifty years.

Q. What is the method adopted by the public service commission in New York?

A. Well I don't think they themselves have established any definite system.

Q. Do you — of any commission which has adopted the Summers' system?

A. I do not.

Q. What is the method adopted by the Wisconsin commission?

A. Of depreciation?

Q. Yes?

A. I was not aware that they have established a regular system. If they had the- undoubtedly find it would not work.

Q. Then you don't know what their method is if they have one?

A. I have read a good many of their papers and have watched their depreciation I have not had from their statements of depreciation anything more than a general idea than they use the
2483 very best judgment of their assistants, their engineers and of the commission themselves and I have felt that they were exceedingly wise in the matter of depreciation because of the fact of not trying to create any hard and fast law, because you can't do it.

Q. Can Mr. Summer do it?

A. I don't think he can. But when he falls below me in depreciation I give you the benefit of it.

Q. How many brick do you charge us up with in this building No. 3?

A. The page if you please.

Q. The total is on page 32.

A. In place of 117,282 bricks you have I have 93,292 bricks and in the place of 6,194 bricks I have 4,682 bricks.

Q. On what page is the 6,194?

A. Page 32 at the bottom.

Q. I don't see it here.

A. There are a great many changes apparently between what you have and what was given me earlier in the year.

Q. Now did you make any deductions there from the 12,306 which is deducted for openings?

A. No.

Q. Uniformly did not do that did you?

A. Well I won't say that, I will say it is true in this case.

Q. Don't remember about that?

A. No.

Q. Now one or two other items in that building I want to ask you about. Did you charge all the brick work at \$16.00?

A. \$16.00 and scaffolding that was put in.

Q. How many did you add for scaffolding?

A. \$1.00 a thousand I think.

2484 Q. Right straight through?

A. If it was put in in your list. I know my instructions were to give a dollar a thousand for scaffolding and let it go at that.

Q. Instructions to whom?

A. Instructions to Mr. Hasek and Mr. Dobson.

Q. Did they make all the figures then?

A. Oh they had to do the computing. One man could not go over this work following 15 or 20 computers engaged in originating it.

Q. What did you add for pilasters and cornice?

A. \$1.50 per thousand and my instructions—

Q. Where did you get that figure?

A. My own opinion in regard to the matter that going around the corner that way added about \$1.50 per thousand to the cost of adjusting and laying it in factory work.

Q. Anything extra for the gables?

A. That is too general a question, have you got any figures here—

Q. I mean the gables in this building.

A. What page, what number of brick have you got?

Q. There is one on page 32.

A. You have added 2,287 for the gables, I have added 1,870 for the gables in the first case. In the second case it is the same thing, the company 2,287, myself 1,870.

Q. Take the emplacements, page 33, have you added anything extra there?

A. Running down to the emplacements where the company gives 295 I have 236, the company 259, I have 203.

Q. I don't care for those figures, all the way through you have put those all in \$16.00 a thousand on that page or do you know what figures the people did take?

A. Referring to page 34.

2485 Q. No, 33.

A. Well you see this is carried over here.

Q. I didn't ask about that, I asked about 33. There is an item of the same kind on page 34 but I didn't ask you about it.

A. I had to look to see what prices I had fixed here. \$16.00 per thousand shown on page 34.

Q. The next thing is water table dressed stone. Mr. Dobson gave you these figures?

A. Yes, \$1.50.

Q. Window sills, cut stone he gave you the figures there?

A. Yes, sir.

Q. Lintels, he gave you the figures on that?

A. Yes, sir. \$1.50 a cubic foot.

Q. Floors two inch of concrete on two inch planks did he give you the figures on that?

A. No. I think they came to be about that and I told them—there was a hitch about that somewhere there, I think it was about seven cents a square foot.

Q. I know, but where did you get the information did they work it out or did you work it out?

A. I think I worked it out in this case.

Q. Any definite recollection about it?

A. Not very much no. There is an immense number of these details that came up.

Q. Then you don't know whether they worked it out or you did?

A. I know that I approved the figure in the end as being about right.

Q. You approved of all of it did you?

A. Yes, as about right. Of course some things would get by me once in awhile as they would get by anybody because it was necessary for me to be busy with machinery and apparatus sometimes and they were working on this.

2486 Q. When did they begin to work on this, Mr. Dobson and Mr. Hasek?

A. About the time I came here which I think was six or seven weeks ago. I know they haven't had time enough any more than I have had myself.

Q. About the time we began taking testimony here then that they began working on this?

A. I think it was a little ahead of it, a week or so ahead of it perhaps.

Q. Are your assistants staying at the Chamberlain?

A. One of them was, the other is a resident of the city.

Q. Mr. Dobson you mean was a resident of this city?

A. I presume so, yes.

Q. He is the man you have already referred to as a member of the city engineering department?

A. Former member of the city engineering department, I think a present member.

Q. Is your assistant who came from out of the city, has he been staying at the Chamberlain?

A. Yes, sir.

Q. So you can tell us when he came here by checking up there can't you?

A. Yes, sir. I think I have paid seven weeks' board there, so it must be about seven weeks ago he came here.

Q. Have you been furnished copies of the appraisements made by the witnesses for the complainant?

A. As they came out, the exhibits were all submitted to me.

Q. You were furnished copies of them?

A. Well do you mean furnished—

Q. Were copies made for you from the copies that were furnished to the city?

2487 A. Well if I remember rightly there was a copy of a portion of Mr. Lea's work I don't think any other copy made.

Q. What part of Mr. Lea's work was that?

A. The early part of it.

Q. Have you that copy with you?

A. No.

Q. Where is it?

A. I think it is at the hotel. I don't think I ever bothered with his copy.

Q. Were these copies also furnished to Mr. Dobson and your other assistant?

A. They were laying there on my desk and at their service as they wanted them.

Q. Now when was this work completed by your two assistants?

A. It was completed along about I should say about two weeks ago practically completed. They were picking up a good many things afterwards as they came up, getting them together, but I think the detail of the work was completed about that time.

Q. And when was your report complete?

A. On the 14th of this month if I remember rightly I signed my report. I think you will find the date in Exhibit 23.

Q. And that was the day when this work was finally completed?

A. When the typewriter finished it.

Q. When did the typewriter begin it?

A. Well you have got me.

Q. And what part of your report was furnished by Professor Bemis?

A. I don't think Professor Bemis has ever seen any part or parcel of that report even up to today. I don't know unless he may have picked it up by accident.

Q. You haven't conferred with him about it then?

2488 A. Why yes, I have been very glad indeed to discuss the matter with him and whenever any line of thought came up or any reasoning to avail myself of his ability.

Q. Have you discussed these unit prices with him?

A. Not at all.

Q. Simply been the theoretical part of the report?

A. Not even that so much as the line of thought. The question we will say, took up the question of depreciation for instance, I think it was after a discussion with Professor Bemis that I liked very much indeed what he had to say and I decided to distinguish between depreciation and residual depreciation after all repairs had been done.

Q. That is a new thing in this case is it?

A. It is to me original.

Q. And what else did he suggest?

A. I don't recollect anything else except this matter of depreciation which is a subject that has always been an argument amongst all people connected with engineering.

Q. I don't think it need be limited to engineering. Well let's get back to this thing. Did Mr. Hasek and Mr. Dobson go and get the prices for this concrete floor in the basement and the floor timbers and this other concrete floor plank and so on through this building?

A. Referring to what building?

Q. The one we were talking about page 34 and 35 of Exhibit - at these two pages.

A. Yes, sir.

Q. And then they worked out the amounts?

A. Yes, sir.

2489 Q. And they did the same thing with the roof supports?
A. Yes, sir. I can explain to you that all these unit figures were brought to me working in a room by myself and submitted to me and if they appeared about right after a little discussion with Mr. Dobson and Mr. Hasek or one of them I would approve of them and they would go ahead and make the computations. They were working elsewhere and away from me.

Q. Take the building then as a matter of fact the way these unit prices were arrived at was Mr. Dobson or Mr. Hasek went to work and figured them out and came in and talked it over with you and you said all right and they took them and went ahead and worked out the appraisements?

A. They got unit values and discussed them with me. Then if they were approved and after they were approved they took what had been furnished by the company as quantities except in the matter of brick where the error was too obvious and made up the computation using the company's quantities and the approved units of value whatever they might be that they had found in any way that they could for the locality.

Q. How much experience has Mr. Hasek had in estimating?

A. I understood Mr. Hasek has had considerable experience in estimating and I know that he is capable as a computer.

Q. Is he a graduate of some school of engineering?

A. Well you will have to ask Mr. Hasek I am not very well acquainted with the gentleman's biography.

Q. What is his age?

A. I should judge about 26 or 27.

Q. And what experience has he had with gas works?

A. None whatever I imagine. It is simply as a computer I asked Mr. Hasek's services.

2490 Q. Tell us what unit prices brought to you by Mr. Dobson or Mr. Hasek you used?

A. That is a very difficult question to answer because it requires an effort of memory. I know I did not always agree with them. I know where Mr. Dobson brought local figures to me I was inclined after finding out the source from which he got them to accept them without change.

Q. I will put the question in another way. Can you give us any unit prices brought to you by Mr. Dobson or Mr. Hasek which you did not use?

A. If I remember rightly I insisted on an addition of something like \$10 a thousand for the work of handling lumber, that was one change and I think I probably changed more or less all of the smaller units, I don't know.

Q. Can you recall one that you changed?

A. Well yes, this happens to occur to me. Mr. Dobson told me that the iron used for reinforcement over here on this bridge which is rolled iron corrugations in it, cost about two cents or two and a half a pound and I rather insisted that the wrought iron should be

from three to three and a half or even four cents a pound which was used in the works.

Q. Do you recall any other unit prices you took?

Objected to as incompetent and immaterial.

A. All brick work I think in the case of the brick work that I made Mr. Hasek work out the cost of scaffolding and after he had worked it out added \$1.00 to the thousand making the cost of the brick work where the scaffolding was used \$17.00 a thousand.

Q. I think I also was the one who directed the addition of \$1.50 to every thousand brick in this rough factory and warehouse work where pilasters were put in making the cost of the brick work in the pilasters about \$18.50 per thousand where scaffolding was used. I don't know, I had a pretty active hand—of course I was busy all the time with the machinery and Mr. Dobson and Mr. Hasek worked along on the building for me and I grew to have a great deal of confidence in them.

Q. It was your first experience with either one of them wasn't it?

A. Yes, sir.

Q. Now take the apparatus in this building, what did you include under the head of laboratory apparatus, page 16 in your report? Turn to the inventory page 41, and tell us what items were included in that as laboratory apparatus. Before we go to that I want to ask you something else. You have given foundation excavation there \$10 then brick and concrete—page 16 of your report brick and concrete 162 cubic yards at \$7.00.

A. That is it.

Q. You lumped that by the cubic yard?

A. Yes, sir.

Q. How many cubic yards of brick there did you get?

A. About two and one sixth cubic yards in a thousand of brick or round figures a couple of cubic yards. Yes, I think that is about it. That would give you about \$7.00 a cubic yard for brick work which is about in the neighborhood of the same as concrete as this was for the rough laid pitching work of a brick layer pitching brick into a foundation I just called it all concrete and let it go. He can pitch about three thousand bricks in a day if he knows his business.

Q. That would make your brick in the foundation there, how much a thousand?

A. About fifteen or sixteen dollars along about there.

Q. Now how many brick did you tell us you figured to a cubic foot?

A. I think I gave you eighteen.

Q. How many cubic feet are there in a cubic yard?

2492 A. Twenty seven.

Q. That would — just about 500?

A. Yes, sir.

Q. 486?

A. So for a thousand it would be about two and one sixth, along

about there. It is an easy way of getting at it often used by engineers.

Q. Now then tell us what you included in your item laboratory apparatus?

A. I can tell you how I got at it.

Q. No please tell me what items you included, I didn't ask you how you got at it?

A. On page 41 Goodwin Bar Photometer, American Meter Bar Photometer, Pentain Lamp, *Pentain Lamp*, Carbonic Acid Apparatus, Freezing Coil in box, stop watches, five foot wet meter, Hydrometer, Barometer, Transit, two T-squares, case of test tools, medicine chest, sulphate test, C Sulphate test, one Orsat test apparatus 1 Still for tar or oil, 2 Double metal records, one 8 inch U guage, one 12 inch U guage, four 16 inch U guages, four 18 inch U guages. One steam guage, two steam guages, five 20 inch U-guages, all lumped at \$2,000.

Q. Now did you put a price on each one of these things?

A. I did not.

Q. Take these two steam guages on page 57, where are they?

A. I didn't look them up, I accepted them.

Q. They appear in the inventory to be installed and operated, are they laboratory apparatus?

A. No part of the general apparatus around the works. Required I suppose a couple of thousand dollars to take care of them, that is what I took them at.

Q. Did you ever buy a Goodwin Bar Photometer?

2493 A. Yes, sir.

Q. When?

A. Franklin Institute I think in 1884 and subsequently for the University of Pennsylvania. I made some thirty thousand observations on one.

Q. I was asking about buying. When was the last one you bought?

A. I think it was along close to 1887. No it was not, I bought a lot for the Edison Company, a very small matter of 500 or a thousand a piece and I didn't pay much attention to them.

Q. Did you ever buy an American Meter Company Bar Photometer?

A. No, I never did. Goodwin was the fellow that got the orders.

Q. Do you know what they sell for?

A. I told you somewhere between 500 and a thousand. He has a short bar—I remember about \$650, a long one run up fixed out about \$1,000 complete. Then the rest of the stuff I could not tell what it cost no use trying to recall it.

Q. This first bar photometer is a 60 inch ins't it?

A. Yes, I should say that was in the neighborhood of four or \$500.

Q. About how long are the long ones?

A. About a hundred inches.

Q. Now then did you ever buy these lamps, pentain lamps?

A. I don't know whether you would say I bought them or not. The last time I was at Minneapolis I asked the buying of one,

the city paid for it, and the inspector I believe did the ordering, that was a short time ago.

Q. What did it cost?

A. I don't recall, I didn't pay any attention to it, even if I knew I would not recall it, a small matter.

Q. You don't know what they cost do you?

A. Not now no, I could find out if I wanted to.

2494 Q. The C. O. 2 apparatus you don't know what that cost, do you?

A. I will say once and for all I don't know the details of a single item of that \$2,000 mentioned, nor would I take the trouble to find it out unless I wanted to buy one of them.

Q. More than that there are no matters which you have bought or which have been bought under your supervision generally are there?

A. Directly the reverse is true.

Q. The next thing I see here is Connolly Automatic Governor. Are you familiar with the price on that?

A. Yes, sir.

Q. Where can they be bought?

A. I have their letters at home, I think it is some where in Indiana. I can bring their letters around if you like giving their prices if I remember rightly.

Q. How many makers are there of this governor?

A. Connolly?

Q. Yes.

A. I don't know. I would write directly to them in Indiana, look up my memoranda if I wanted them.

Q. They are in New York as a matter of fact aren't they?

A. Well that I don't know.

Q. Did you ever buy one?

A. Yes, sir.

Q. When?

A. If I remember rightly the last one I bought for Durham, one for Fostoria. I may not have bought one for Fostoria. I recall paying for it.

Q. Where did you get your price you put on this one that you have in here?

2495 A. I think I got that from Cleveland, I don't know.

Q. From Cleveland?

A. Yes, sir. I know it is an outside price, more than they would charge a good deal.

Q. By saying you got it from Cleveland you mean you took it from the estimate of somebody an estimate of the Cleveland—

A. No from my own work.

Q. Your own work on the Cleveland plant.

A. I think it was Cleveland, might have been Buffalo, I don't recall.

Q. Where did you get the Cleveland or Buffalo?

A. In the usual way by inquiry of the makers.

Q. Did you inventory this stationary washstand and if so under what head?

Mr. BYERS: I submit it seems to me in interest of justice if nothing else, and the treasury of the city and of this gas company that this test examination has gone clear to the limit. Here is a gentleman apparently, it is apparent to everybody way past middle age and he has been bully ragged and nagged ever since early this morning upon matters that are not important and upon questions that will not assist this Master in arriving at a final conclusion. We object to it for that reason, if there — any items here of importance that the witness ought to be interrogated about, that is entirely proper, but the idea of badgering an old man for six hours is to me not only cruel, but inhuman.

Q. Did you list this stationary washstand, bath, flush closet and so on?

A. What else?

Q. Just take those three items, that hundred dollar item down here below fixtures?

A. What page?

2496 Q. The same page 16 and 42 in the inventory. I can put it another way, what does toilet fixtures at the bottom of page 16 cover.

A. Covers the water closet in the corner there.

Q. Is that all?

A. That is all that the toilet fixtures covered there. I don't suppose the water closet is worth a hundred dollars. The rest of them are covered if you want to know about it, bath tub and *laboratory* furnishings on the middle of page 17.

Q. The next two items safety blow back and drip pump. You put them together?

A. Yes, sir, about four hundred. The drip pump is nothing.

Q. Nothing?

A. Oh a few dollars that is all.

Q. Are you familiar with the prices of these blow backs, have you bought them?

A. Oh I don't know. No, I don't recall buying what you call a blow back.

Q. Do you know what is being paid for them by people who are buying them?

A. I know about what they look like, make a pretty good figure on them just as I could what a horse is worth by looking at it probably unless there was something unusual about the brute.

Q. Do you know what people are paying for these as a matter of fact.

A. Yes, for that I should say about \$400 of that size. I think a weight was given. No, it was not given here, it was given in another case somewhere.

Q. These are not standard articles are they?

A. I didn't understand it to be a standard article.

Q. You don't know what they cost as a matter of fact?

2497 A. Well I should judge that thing was worth about \$400.
Q. But do you know what one was ever bought for or sold for?

A. Why certainly not.

Q. Take these exhausters with the connections, have you had any experience in buying those things?

A. Yes, sir.

Q. Where and when? Take this first one, this Green exhauster?

A. I think I have quotations on my desk now giving the prices of it. I will bring it down if you like.

Q. You did *right* then to ask somebody what it cost?

A. I wrote I suppose to the Green concern to find out the price of the Green Exhauster.

Q. Did they give the price f. o. b. Des Moines or f. o. b. New York?

A. If I remember rightly it was f. o. b. New York. At any rate I made a very ample allowance on them.

Q. Sort of a running guess for putting it in place?

Objected to as being improper question, the witness has not given any answer that counsel might infer it was a running guess.

Mr. GUERNSEY: I will withdraw the question.

Q. Did you make a detailed estimate of what it would cost to bring this exhauster here and install it?

A. No, I did not. I added sufficient to it to more than cover in every possible way the furnishing and installation.

Q. Then did you just make a sort of running guess on that what the cost would be?

A. No, I did not.

Q. Did you make any computation to get at it?

A. Yes, made up my mind about what would be more than the possible cost to land it here and land it on its foundation, then I added a lot to that and gave it all to you?

2498 Q. This page here covers quite a number of pieces of apparatus. Do you know the actual price at which any of this apparatus on page 42 is now selling?

A. You refer to the Wilberhham-Green High pressure pusher and that sort of things?

Q. All items on that page?

A. Yes, I can bring you a dozen letters lying on my desk if you wish.

Q. These letters written to you in response to inquiries from you as to prices?

A. I think so. Or might be written to my assistant in New York, I don't know.

Q. Inquiries made up recently for the purpose of getting information to make up this so called appraisement?

A. In the last month or two for the purpose of getting this information.

Q. If that the general plan you have pursued in getting at these prices to write to somebody and ask him what the price would be?

A. How else would you do it if a man manufactured anything, but ask him what he would sell it for?

Q. I should ask him if I hadn't any information on the subject. Has that been the *court* which you have adopted to write to these various manufacturers asking them for prices?

A. Wherever necessary, yes sir. Anything that was necessary to get a square deal I got and just put it down for a fact.

Q. Take this page 42, you wrote to the Wilberham-Green people?

A. My assistant did, I did not.

Q. At your direction?

A. My direction.

Q. And then you wrote to the people that make the roof exhausters?

A. Either he or I did.

2499 Q. How about tar extractor?

A. Well now if I remember rightly he wrote over to Newark and saw the man and the man told him a tar extractor like this was worth about \$600 so I gave you about seven or eight hundred on it landed here.

Q. And in place?

A. In place.

Q. Take the Buffalo Duplex Pump, what did you do on that, write to those people?

A. What page?

Q. The same page 42, down near the bottom.

A. You will find on page 17 given to you at \$200 which was its price set up.

Q. Did you write the manufacturers and ask them what it was worth?

A. I did not.

Q. You have estimated it yourself?

A. I gave you all that was coming to you in that and more too.

Q. Ever buy one of these pumps.

A. No, I don't think I did. I don't know, so many different kinds of pumps, I have bought a great many pumps.

Q. Take the Warren pump, and vertical pump, did you write either of these people?

A. No, I didn't write either of them.

Q. Use your judgment on them?

A. Used my judgment on them.

Q. Did you make an estimate on piping in this building or did your assistant make it?

A. Piping in building.

Q. Building contents, apparatus just referred to, referring to the bottom of page 42.

A. Referring to the bottom of page 42 and given on my 2500 report on page 17. I made that estimate myself.

Q. You put 16 inch pipe in this building \$4.20 as against \$2.10 in the purifying house didn't you? I notice below that double rates covering valves, etc.

A. Quite a lot of valves in here, I would not say an immense number. In other words I wanted to allow you thirteen or fourteen hundred dollars for your valves in there.

Q. The valves excepted you put this pipe in then at the same rate you paid for laying pipe in the street?

A. Yes, sir.

COURT: If I understand correctly this \$13,750 includes the other figures there?

A. Yes, it is included in the figures above and the sum of these figures above is also about \$2,750, the sum of all the figures beginning at 8 inch and going down to 24 inch inclusive, about \$750, twice 1375.

Q. Now turn to the apparatus in the next building. I notice Payne Horizontal engine here page 52, 2 Payne horizontal engines for that matter. Are they indicated here for two engines for blowers in your report on page 19?

A. On page 32 you have one Payne Horizontal engine in building 4, A. B. and C haven't you? You also have one Payne Horizontal Engine six by eight, installed 1887 one 1889. They are these things that are in that shed covered with canvas and covered with rust.

Q. I didn't ask you about that, I asked you where they were if they are in your report?

A. Yes, sir; in the report.

Q. Is it the item I called attention to, 2 engines for blowers page 19?

A. They are included in the six foot water gas apparatus in the estimate for that.

Q. Then I was right, it was two engines for blowers page 19 of your report.

A. My report two generators, two carburetters, two heaters, two washers, one scrubber, one condenser, two engines for blowers.

Q. That is the item which we refer to?

A. Yes, sir.

Q. You just lumped these sets?

A. Yes, sir.

Q. Without any particular information as to what they sell for?

A. Well as I happened to be concerned in paying for a set just about like it in Fostoria, Ohio, I consider I have very precise and exact information as to what they sell for.

Q. And that was ten or a dozen years ago?

A. I think it was long since 1900. I don't know when the people that owned the place bought them. I know it has not been very long since I had to go out there to run them.

Q. What does this note mean, annual depreciation water gas set only \$461.00? How do you get at that? Bottom of page 19 of your report?

A. Annual depreciation of water gas set, I declare that is where that stenographer got into that again. At any rate it does not mean anything for it is never used afterwards.

Q. You find also on page 21 at the end of section 15 reference to annual depreciation do you not?

A. That too is a memorandum, that is true, but not used afterwards.

Q. The theory was changed while this was in course of construction?

A. Became such a vast number of items if I went on 2502 taking them item by item I would not have been able to complete my work so I changed the method or used the method used on page 80 which simply took three items instead of a very large number.

Q. Here you resort to another method to get the depreciation, you say depreciation by inspection 50 per cent. You took the actual condition as shown by inspection here.

A. What I thought it was, about half worn out.

Q. I am asking about the method?.

A. Yes, sir.

Q. You resort in this case to the actual conditions shown by inspection?

A. As I look at it you know.

Q. In your next building, this boiler house, that was erected in 1902 wasn't it?

A. It so shows, yes.

Q. And there you go back to Summers again and didn't use inspection for your depreciation?

A. Yes, sir.

Q. Boiler house in pretty good condition isn't it?

A. I don't think I use the depreciation by inspection except on apparatus, I may have used it, I think I used the Summers system wherever I could uniformly on the houses. 17 per cent eight years, that gives it nearly 50 years which is a great deal longer than it could possibly last I think.

Q. Did you know the character of the building, brick and steel one story high foundations concrete and brick, walls of brick in lime mortar? Floors concrete on earth, roof of slate on steel purlins and trusses, do you think a building like that in eight years is seventeen per cent gone as a matter of fact?

A. Well if I had estimated it myself I should have said 2503 about 16 per cent gone, but Summers said 17 per cent. I should have said 16 per cent certainly.

Q. That is based on the present present condition or is that obsolescence and that sort of thing?

A. The place is good for about 50 years and 50 years means two per cent depreciation.

Q. Straight line?

A. Straight line.

Q. You charge off the same rate two per cent and put it into your operating, do you think the same method should be adopted?

A. Charge it into operating expenses?

Q. Yes.

A. Well as you know I have taken it up as residual depreciation.

Q. I know that, but if you are going to charge off two per cent straight line depreciation don't you think if you follow the plan why shouldn't you continue it afterwards?

A. You mean later on?

Q. Yes.

A. Of course you ought to until the thing runs out.

Q. So that you would have on your method of charging off depreciation here you would have at the expiration of the life of the plant or any part of it a hundred per cent of what that part of the plant cost plus interest earned during the meantime?

A. No.

Q. That is you hadn't used your depreciation fund?

A. That would not be the way I would handle it at all. First of all I would like to charge off if I were allowed to do so by the board of directors the residual depreciation at the end of each year after making every repair I could make, charge off residual depreciation and just make a charge to profit and loss a deduction or credit to the depreciative investment, whatever it might be, buildings, machinery or anything of that sort cutting down its value. I would then like to make extensions of plant out of that charge, depreciation of building being put into the plant if it was a good plant that you would earn more profit in that way than you could by investment and besides that you would have a surplus which would take the place of your depreciation fund if that were invested outside and as a consequence the value of your plant would be kept up. Your plant would not depreciate in value if your capitalization held even you would go right along and at the end of the term you would have say a million dollars in stock and a million dollar plant which you started out with, that is my idea. In the meantime you would be earning a lot of money and making dividends and nobody would be hurt.

Q. You would charge off for depreciation——

A. Residual depreciation.

Q. On a 2 per cent basis here estimating this building in your fifty year life 100 per cent of the value or cost of the building without taking into account interest?

A. Yes, and in the meantime I would keep the building in the best possible repair if I could.

Q. And in the same way with reference to each piece of apparatus during its life on the theory with which you have estimated depreciation in getting at your valuation here you would charge against that piece of apparatus or that piece of property 100 per cent of its cost without taking into account interest.

A. And at the same time, you follow me do you not, I put it back into plant.

Q. I am not asking you about that. You have got one idea in your mind and I have another. I — interested in mine.

A. Well I would not agree with you at all.

Q. Let me put the question again. On your theory on which you have charged depreciation here, you will charge against each piece of property during its life as depreciation its entire cost without taking into account interest?

A. Yes, but I would not do that unless I put that amount right back into the works and kept the works up.

Q. Does the amount that you have charged off on account of depreciation depend upon what you do with the money after you make the charge?

A. As a practical matter it is very important. If you undertake any of these sinking fund schemes you would find yourself with a trust fund you could not touch and a broken down works in a mighty short time.

Q. Now I notice in several of these buildings including this one you have figured the cost there as to the square foot or cubic foot. Did you make the figures or did somebody else?

A. That is you mean the area?

Q. You have given the area 2831 square feet, structural cost per square foot \$1.958.

A. What page?

Q. 21.

A. I think these figures for section 16, boiler and engine room Buildings 6 A and B \$1.958 per square foot were made by Mr. Dobson, I see his handwriting. I should say to you that the checking out of the structural cost per square foot was for the purpose of assuring myself that there was no abnormal results or values obtained. Costs about \$2.00 a square foot and about right for a one story building like that.

Q. What would be about right per square foot in the purifying house?

2506 A. I could tell by looking at it.

Q. You said these figures were about right, I assumed that you have some judgment as to what was about right, if it is simply referring to the record I don't care for it.

A. You are always asking me for an effort of memory, which I don't see has anything to do with engineering or judgment either.

Q. Passing that I will withdraw that question. Now I want to call your attention to page 22 of your report referring to the boiler house extension. That building is brick and steel, one story, foundation concrete and brick in cement mortar, the north and east walls, brick and cement mortar, east wall structural steel covered with corrugated iron, floor or brick cement grouted, roof corrugated iron with steel purlins and trusses one year old. What depreciation does Mr. Summers charge for a building like that?

A. In my report on page 22 near the top of the page there depreciation three per cent, one year, Summers, \$30.14.

Q. So that on a building like that this theory you have adopted charges three per cent depreciation the first year.

A. That is it.

Q. And does that refresh your recollection so that you can say whether Mr. Summers begin with a high rate of depreciation?

A. It does not. May I bring that book in if you would like to look it over.

Q. I said before I have no objections and no control over you.

A. Well I can't recall.

Q. Now turning to the next building you find that for four years Summers has given only 8 per cent don't you?

A. That is so.

Q. Are you still unable to recall enough to tell us whether his method of depreciation results in a lower valuation than the ordinary method would?

A. I am not able as some are to generalize from two instances.

Q. Can you answer the question?

A. I cannot.

Q. Now take this boiler house extension where it is a new building brick in cement mortar and all that did you allow us any more for that construction than on these old buildings for brick work?

A. What page?

Q. Page 21 of your report it begins.

A. Section 16 boiler and engine rooms buildings 6 A and B.

Q. Boiler house extension is the one I had in mind, inventory page 68, building 6-C the last paragraph page 21 of your report, erected 1909, brick and steel construction?

A. I took for all brick work \$16.00 plus \$1.00 for scaffolding a thousand, plus \$1.50 for pilasters making no difference, it was an average all through. I did so here.

Q. On the next building there is something I don't understand, page 74 of the inventory, page 22 of your report, you begin contract price as per company's inventory, \$8,449.78. What does that mean?

A. Generator house?

Q. What I don't understand is this contract price as per company's inventory, what does that mean?

A. That assumption was made—it was worked up in detail and the assumption made that a building of that importance would be let to a contractor and that contractor must have his cash before the general expenses in the way of overhead charges come in.

Q. How did you get \$8,449.78. Our inventory don't show any contract price?

2508 A. Where?

Q. This says contract price as per company's inventory, that is what I don't understand.

A. I will look up the way in which we got that.

Q. Do you know how it was obtained?

A. Oh yes, it was worked out in the ordinary way.

Q. How did you ordinarily work it out, from the company's inventory if the inventory don't give the price?

A. That contract price of \$8,449.78 given there is the result of working it out just as the other houses were worked out and had in it cast iron floor which went under the generator making 11,718 which I directed should be subtracted from it leaving a corrected contract price of \$6,731.56 the assumption being that the whole building would naturally be given to a contractor it being of that

size and in working it out as I have subsequently learned it was worked out under a sort of inside special arrangement by which the company furnished part and the contractor another part of the work.

Q. Then the words "As per company's inventory" don't refer to prices shown by the inventory, but the building as shown in the inventory.

A. The building as shown by the inventory

Q. You deducted cost of cast iron floors, stairs, etc., for generator, what does "and so forth" cover?

A. I was looking back for each of these details and I don't see how I can tell without checking for them and I don't see how we can check without knowing.

Q. Can you look that up this evening and let me know?

A. I will look it up for you.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

2509

Friday Forenoon Session.

AUGUST 18, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

WILLIAM D. MARKS, continuing his cross-examination, examined by Mr. Guernsey, testified.

Q. Digressing for a minute, Professor Marks, I notice on page 24 of your report that in the fourth line you take from Somers 31 per cent depreciation for 14 years, and in the—I can't give you the number of the line—but about a third from the bottom you take 23 per cent for only 9 years. Do these percentages indicate fairly the way he piles percentages for depreciation for the early years?

A. On page 24, depreciation 14 years 31 per cent, Somers, is the depreciation of a frame building in fair condition at the end of 14 years as given by Somers. On page 24, depreciation 9 years, 23 per cent, Somers, is the depreciation of a frame building in fair condition for the period of 9 years. I can give you the depreciation for each year in the frame building, if you like, running down the list.

The MASTER: You didn't say what the per cent was.

A. 23 per cent.

Q. Well, now, for the first nine years then Somers takes off 23 per cent?

A. Yes.

Q. And for the next five years he takes off 8 per cent?

A. Yes, additional 8 per cent.

Mr. BRENNAN:

Q. Professor Marks, is there any difference in the buildings upon which the depreciation is computed; that is, the character of the buildings?

2510

A. No they are both frame buildings, and the only differ-

ence in the buildings is the difference of age; they are both assumed to be in fair condition. I would say that according to the system of Somers that for 9 years a good condition is a depreciation of 20 per cent, a fair condition is a depreciation of 23 per cent and bad condition is a depreciation of 42 per cent; and for 14 years good condition is 28 per cent depreciation, fair condition 31 per cent, and condition is 53 per cent.

Q. Now these are not both frame buildings, are they?

A. The coke shed building, 8-A, consists of a foundation under the ground, and cellar under the ground, as I recall it, excavated to a depth of 8 feet below the ground level; above it it has timber spaced so that it looks somewhat like open work, and it would be difficult to say—if you wanted to you might say a frame building and a brick cellar. At any rate, I took it as a frame building and let it go at that.

Q. I asked you whether these were both frame buildings?

A. Yes.

Q. Well, take the other building, you will find it frame construction on steel, wood braces, walls corrugated iron and corrugated iron roof—now what per cent of depreciation does Somers give for a building like that?

A. Somers gives depreciation for only two types of building, one is a brick building and the other a frame building.

Q. So that he does not give any depreciation for a building of the construction I have just mentioned?

A. Not going into details that way—it is not necessary.

Q. Now let us turn back a little—now take this first building A-B, you—page 13, section 7. You take Somers there for what condition and what kind of a building?

A. Somers' depreciation is used on page 13 for the purifying house in good condition, 18 years, 25 per cent.

Q. Now what does he give for the brick building with steel roof?

A. He does not specify about the roof.

Q. Well, wouldn't there be a decided difference in the amount of depreciation in 18 years between a steel roof, a tar roof or a tin roof or shingle roof?

A. That would depend, if it is a question of residual depreciation, I presume, on the amount of care given to the roof and the way in which it is kept up. At any rate, in this case, the purifying house was put in the highest class, the good; there are three classes, good, fair and bad.

Q. And it was classified as an ordinary brick building?

A. From the table for the depreciation of buildings, store buildings, dwellings, brick.

Q. Yes, now is it your idea that the depreciation on a building such as this which has practically no finish, no plaster, has it—nothing of that kind—would be as rapid as the depreciation on a dwelling, take a dwelling with a shingle roof?

A. The action of the gases, I should say depreciation would be greater because of the action of the gases which are continually more or less in the atmosphere of that room and floating up and attacking

the roof and perhaps even having some effect on the mortar in the walls.

Q. And is that the reason why there is a monitor on this building with an air space there to ventilate it and let the gas out?

A. No that is to avoid, by having the ventilation as good as they can possibly have it, the possibility of an explosion more than anything else.

2512 Q. Now, it is obvious though that this building does not come within the class of buildings that Somers had in mind when he said store buildings, dwellings—and what else did he say there?

A. Table for the depreciation of buildings, store buildings and dwellings, brick.

Q. Yes, and it is neither store building nor dwelling and it lacks many characteristics of each of them?

A. No, I should judge it was, if anything, rather good as compared with what the same type the old type of store in this town and I was inclined to place it in good condition in the classification.

Q. Isn't this the building that had this old brick in it, and things like that, the rotten stairway and other things you talked about, and the floor you said we hadn't seen, that if we had seen it we might think different?

A. The way it was put together——

Q. Yes, the building you made all this reference to?

A. As far as the rotten brick is concerned——

Q. Can't you answer the question directly?

A. No——

Q. Why can't you answer directly whether or not this is the building to which you made this reference?

A. Because you put two or three statements in one question.

Q. I asked you whether these statements were not made with reference to this building. Can't you tell me whether each one of these statements was not made with reference to that building?

A. Let me make each statement separately——

Q. Can't you tell me whether each one of these statements wasn't made with reference to this building?

A. I answer that no.

2513 Q. That is all I care to ask you about then. Now, then, the ordinary store building is how many stories?

A. I couldn't answer that.

Q. At least two, isn't it—you wouldn't say that was intended to apply generally to one story buildings that Somers has there?

A. Apply to buildings of average height, I should judge.

Q. The ordinary store building is plastered, isn't it?

A. Depends entirely on whether it is a warehouse or high class store building; warehouse wouldn't be plastered; this comes in in the warehouse class.

Q. Do you assume that warehouse, or rather store buildings include warehouses?

A. I assume in this case, they are practically in this same class.

Q. The ordinary dwelling has several stories in it?

A. Yes.

Q. Both store buildings and dwellings have large items of expense in the way of finish and fixtures and things of that kind?

A. Not the store buildings.

Q. Now let us take up the next one and see what sort of a building that was—this building #1-C 9: brick foundation, corrugated iron walls and roof, steel braces, dirt floor; what did you take as the classification of Somers to apply to that?

A. That is the building I have given the present value of \$82.09.

Q. What classification of Somers did you take to apply to this building—that is what I asked you?

A. I did not take the trouble; it is a lean-to against the wall of the purifying house.

Q. Now take the next building in section 10; how did you classify that?

A. Store building, brick, in bad condition?

Q. Yes.

A. 63 per cent.

2514 Q. Does the ordinary store building have a slate roof?

A. That is a generalization I could not answer.

Q. You never observed enough to tell us?

A. Oh, it is too broad altogether, it would be absurd for anybody to answer—

Q. I don't care about anybody, I want to know whether you noticed it. Now take the next building, section 12 here, did you classify that—this is the building to which you referred, the roof of which you referred to as a sieve, isn't it?

A. That building has a depreciation according to Somers of 63 per cent, as you will notice.

Q. What did you take as the depreciation?

A. I looked the building over and thought that in putting it at 67, about two-thirds of its value gone, that I was dealing very liberally with that building.

Q. So that where Somers run over you inspected it?

A. Such an outrageous case as that where the roof was like a sieve, part of it gone, it was a question whether to give it any value at all or not.

Q. Now, then, Somers you say gives it 63—how did you classify it, in what class of buildings, stores and residences?

A. Brick store.

Q. Do you think that is a proper way of classifying it for the purpose of ascertaining the depreciation?

A. It was the most liberal thing I could do; it ought not to be classified at all; Somers assumes there was a roof at least on the building; in this case there wasn't.

Q. And you think a building with brick floors, dirt floor and operating floor of cast iron plates, with no plastering, nothing of that kind, and with what roof it has corrugated iron on steel
2515 pipes comes within the classification of ordinary brick stores or residences?

A. I do not. It falls far below it.

Q. A building of that character would depreciate in your judgment more rapidly than an ordinary residence or store?

A. It was long past the period of depreciation.

Q. I didn't ask you that. A building of that class would depreciate more readily than an ordinary brick residence or store?

A. Why, yes.

Q. How did you classify the coal shed in section 14 of your report?

A. Store building, brick, depreciation fair, 34 years, 38 per cent.

Q. You said depreciation fair, you meant condition fair?

A. Well, you might put it that way.

Q. That is what you meant?

A. Fair condition, yes.

Q. And then this you classification notwithstanding the fact that it has a corrugated iron roof, on part of it tin, and a brick floor, a part of it, with an ordinary dwelling house, with an ordinary brick dwelling house or brick store for depreciation purposes?

A. I noticed the north wall of that had fallen down recently and was replaced by a new wall, and I put it in a good, fair condition.

Q. Did you notice this wall fall down?

A. I wasn't present.

Q. What you noticed as a matter of fact was that the north wall was a new wall?

A. Somebody, I don't know who it was, told me the thing was falling down, somebody standing on the track.

Q. Was it Mr. Dobson?

A. No, sir; nobody connected with the city.

2516 Q. What you know yourself about it is that you saw a new wall there?

A. Yes.

Q. The reast you volunteered?

A. I think it was a brakeman, somebody connected with the railroad told me.

Q. Notwithstanding the fact that one wall was new you have treated that wall as old?

A. No; on the contrary, I put it in fair condition, raising it out of its class.

Q. You thought that justice required that it should be bad, I suppose. Now, then, take the next building, section 16. That is brick and steel construction, one story high, the walls of brick and lime mortar, floors of concrete on earth, the roof slate, steel purlins and trusses; how did you classify that?

A. Depreciation, store building, 8 years, fair condition, 17 per cent.

Q. Do you think that a building of this kind would depreciate as rapidly as an ordinary brick store or residence?

A. Wherever there is any reason to believe that the foundations have the slightest vibration from the movements of the machinery and wherever there is high speed machinery, the question of depreciation at once becomes a very serious one. There might be, if I had the time to observe a larger depreciation; as it was, I could do nothing more than what I saw as I walked through the place, to call it in fair condition.

The complainant moves to strike the answer as not responsive and asks that the question be read to the witness.

(Question read.)

2517 A. More rapidly.

Q. Now take the boiler house extension, that is brick and steel construction, one story high, foundations of concrete and brick, cement mortar, the north and west wall of brick and cement mortar and the east wall of structural steel, covered with corrugated iron, floor brick, cement grouted, roof corrugated iron steel purlins and trusses; did you classify that as an ordinary brick store or dwelling in giving it your depreciation?

A. I should call that below the grade of store buildings, but have classified it as a store building, brick, fair condition, one year depreciation, 3 per cent.

Q. What machinery is there in the last two buildings we have mentioned, building 6 A & B?

A. To what page do you refer?

Q. I refer to the buildings I just mentioned 6-A & B?

A. On page 66, Exhibit 15, furnished by the company, all of the machinery reported by them is enumerated under the head of contents of boiler and engine room, building 6-A & B.

Q. What there is in these two buildings is some boilers and engines and their appurtenances?

A. Yes.

Q. That constitutes all of the machinery in these buildings, does it not?

A. Speaking of cast iron piping erected also.

Q. Do you classify that as machinery?

A. Well, it is a part of the machinery of the gas works segregated here.

Q. It is put under the head of piping in the inventory, is it not, not under the head of apparatus?

A. Yes, it is put here under the head of piping.

2518 Q. You classified it as machinery?

A. Under the head you call apparatus and foundations, do you notice it.

Q. Yes, you run on down and you call the whole thing apparatus, do you?

A. Just put it that way, beginning with the foundation.

Q. Now, then, are these boilers and engines on foundations of their own which are separate from the foundation of the building?

A. The floor was brought right up to them, so that I would be unable to say, although I assumed they were.

Q. Now, are these boilers set in brick?

A. Brick around them—a fire place.

Q. Is it your idea that these boilers and engines will jar sufficiently to weaken the foundation of these buildings in the absence of an explosion?

A. Yes, the slightest vibration will do this in almost any build-

ing, even a tremor, hardly perceptible to the senses, -as a serious effect on the building.

Q. Would you anticipate that the effect on this building would be extraordinary or about the effect we have normally from the operation of boilers and engines on separate foundations in buildings?

A. I should say that would be about a normal result in this case and for that reason assumed the depreciation percentage of an ordinary warehouse or store given by Mr. Somers.

Q. Now, let us have the next building.

A. Building 6-C boiler house extension.

Q. Now that is also brick and steel construction, 2 years old, one story high, foundation of concrete and brick, cement mortar, the north and east walls of brick and cement mortar, the east wall of structural steel covered with corrugated iron, the floor brick, 2519 cement grouted, the roof corrugated iron and steel purlins and trusses. Did you classify that in the class covering brick stores and residences of Mr. Somers, and what condition did you give it?

A. Store building, brick, fair condition, depreciation one year, 3 per cent.

Q. Now let me ask you generally, did you find anything that was conditionally considered good?

A. Yes.

Q. What was it?

A. It was your new installation of generators.

Q. I mean in buildings whose condition you considered good?

A. Yes.

Q. What was it?

A. It was your new installation of generators, there is nothing really first class that I know of.

Q. I am not talking about the building itself, that is the way it is designed, but did you find any building that was in what you call good condition?

A. You mean first class material or good of its class?

Q. I am talking about the condition of the building; did you find any building over there that you classified as in good condition for the purposes of ascertaining your depreciation?

A. Will you allow me to explain in regard to the generator house?

The MASTER: Just answer the question.

A. I did not.

Q. All right; that is all I wanted to know. Now take the next building, generator house #7, brick and steel, two stories high, concrete foundation, the north, south and west wall brick, the east wall timber construction, corrugated iron wood frame in roof; 2520 first floor concrete and brick; second floor cast iron plate steel supports; stairs structural steel and wood. How did you classify that building?

A. Will you allow me to correct a mistake?

Q. Would be glad to have you do so.

A. I see in the case of this building I made a mistake classifying it, condition good, depreciation for 4 years, 8 per cent, and should

have on account of a possible vibration of that building put it in a lower class; I have, however, I see, classified it as good.

Q. If you are resolving doubts in favor of the company, as you state all the time, shouldn't you, if it is only a possible vibration, have done the reverse?

A. I have done so.

Q. You done what you ought to have done?

A. You may put it in that way if you wish; it is evident I was in a very generous frame of mind.

Q. That is what I want to emphasize. You know there is an old adage about the proof of the puddin- being the eatin- of it—now then take your next building, coal and coke shed, 8-A?

A. That is a frame building on brick foundation—

Q. I asked you about that once before.

A. Yes, you did.

Q. Now did you make any difference in your classification for depreciation purposes between the building that you referred to as being built with these old mud brick, and all of the other charming characteristics, and these buildings that were built within the last two or three years of brick and cement mortar, steel roofs, and so on, or did you apply the same rule to each class of buildings?

2521 A. No, it appears the result of the use of mud brick appears in the depreciation more particularly.

Q. I asked you whether you applied the same rule from Somers to each of the two classes of buildings I mentioned?

A. No, because you take the case of the building in the northwest corner which was away past any power of Somers to cover.

Q. You didn't apply Somers' rule to that one. Take the purifying house for instance, which I think you devoted considerable attention to, did you apply the same rule to that building, 18 or 20 years old, constructed as you have said, that you have applied to these buildings I have just referred to, of brick and steel construction?

A. I applied the same method, Somers method.

Q. And classified them the same?

A. I did not. I classified the new #7 building as good, and by a generous attitude of mind was able to classify the purifying house as fair.

The MASTER: What do you mean by fair?

A. Somewhere between being good and absolutely bad.

The MASTER: That means fair for the kind of a building?

A. Yes, didn't look as though it had been abused; didn't look as if the material was absolutely worthless to begin with.

The MASTER: Of course, if it was fair, it would not be absolutely worthless?

A. Bad to begin with.

Q. Let me follow that up a little. What characteristics must a building have to be classified as good?

A. Such as your generator house #7 has.

Q. That is a conclusion; name the characteristics?

A. I don't know your local brick here; if you will take
2522 one of those bricks you will find it is hard burnt and rings,
and that it is liable to be very durable. There will be no
disintegration under the action of gas which are peculiarly active
around gas works. You will find also if you will examine——

The MASTER: Let me ask you a question there. You spoke about
mud brick. What do you reckon the life of a brick building built
with mud brick?

A. Of course mud brick is indigenous to the town of Des Moines,
and of course my observation of it is limited. If you will take the
trouble to examine the building on the northwest corner of *th*their
property, you will find brick there where you can take out your
pen-knife and it will run down——

The MASTER: What is the life of that building?

A. It is 34 years, I think; I should think it was a little past its
natural life.

The MASTER: I know brick buildings of that character double that
age now. I want to know what you rated it at?

A. I should say 34 years would be about the limit of the life of
the quality of brick they have there.

The MASTER: It is the kind of brick all the buildings in Iowa
were made of in an early day?

A. The same kind I presume.

Q. What do you mean by a mud brick that you say is indigenous
to Des Moines?

A. It is like these 16 brick in a cubic foot I sho-ed you here.
I can bring you one in.

Q. I wish you would describe it so that we can see whether we can
get some definite idea as to what you have in mind?

A. It is a brick which is not pure clay. It is a brick which has
either not been burned sufficiently or which they are unable
2523 to burn sufficiently to take it out of the class of salmon brick,
or imperfectly burnt brick. It has the characteristic of hav-
ing rounded corners, not sharp ones, and if you will examine it
after being, for instance, up against the gases in the old generator
room, you will find that it disintegrates, and you can take your
pen-knife, and you will find the old-fashioned mortar harder than
the brick itself.

Q. Brick, today are burned harder than fifty years ago?

A. I don't know.

Q. All over the country?

A. I don't know.

Q. You said a salmon brick, do you refer to the color?

A. That, and being imperfectly burnt; the trade name for bricks
not fully burnt is salmon brick.

Q. The color of a brick depends on what?

A. On the amount of iron in it generally.

Q. On the amount of iron in the clay, don't it?

A. I wouldn't specify it should be in the clay; you frequently see
spots in the brick of iron which you can hardly call anything more
than a mechanical mixture in the clay.

Q. Are these so-called mud brick made of clay or not?

A. Not pure clay.

Q. By pure clay, do you mean technically pure clay, kaolin?

A. I mean free from sand and silt which comes from overflows.

Q. Your theory is these brick were made out of a substance not entirely clay, but contained this silt and that results in soft brick?

A. Impurities; I won't say what they are; certainly not pure clay.

Q. You couldn't make brick out of pure clay, kaolin?

A. I don't know anything about the crockery business.

2524 Q. I am not asking you about the crockery business; but do you know anything about the brick business?

A. A little.

Q. Then we will stick to that—you couldn't make brick out of pure clay?

A. I think I could; I think you can make elegant brick out of pure clay.

Q. You couldn't make vitrified brick out of pure clay?

A. I should think you could come pretty near it, but you would need some glazing material in it.

Q. Pure clay will not fuse, will it?

A. Except at very high heat.

Q. At what temperature is it your notion kaolin will fuse?

A. I don't know anything about the crockery business.

Q. To make vitrified brick you must fuse this mass with something that will permeate the mass?

A. I should think on the surface you would do well enough, without permeating the mass. I don't know anything about the crockery business.

The MASTER: It takes a 3,000 temperature for vitrified brick?

A. I haven't the slightest knowledge of the crockery business.

Q. Now turn to section 20, did you use Somers on the depreciation there—runway coal and coke shed?

A. I think I have already answered that question, stating that I used 3 per cent for 9 years, Somers' system.

Q. I am talking about section 20 at the top of page 25?

Mr. BRENNAN: Section 20 has reference to the scales.

Q. Turn to the top of page 25, the second line on that page, did you use Somers on that?

A. That is a set of Fairbanks' Standard Scales, the depreciation was by inspection.

2525 Q. All right, I was wrong. Now speaking generally in using your Somers table, have you classified the structures here either as brick stores and dwelling-, that is, taking the table he applies to brick stores and dwellings, or the table which he applies to frame dwellings?

A. Yes.

Q. What is the heading of the table he applies to frame buildings?

A. Store buildings and dwellings.

Q. Does Somers anywhere in this pamphlet you have there or whatever it is give rates of depreciation on factory construction?

A. So far as I am able to locate, he has confined himself and in-

cluded all buildings under store buildings, dwellings and office buildings, meaning by that the type of buildings known as sky-scrapers.

Mr. BRENNAN: Is that store buildings and dwellings?

A. Store buildings and dwellings and office buildings, meaning by the words office buildings the type familiarly known as sky scrapers.

Q. What is his language in describing what he means by office buildings?

A. The highest class of steel construction buildings.

Q. Now does Somers give any table there covering what we call slow burning factory construction?

A. No.

Q. That is given in the table there covering ordinary brick and steel construction?

A. No that comes under the head of store buildings and dwellings as I understand it.

Q. Now turn to page 25, 20-A.

A. I have it.

2526 Q. You have first a steam hydraulic elevator there. Where would that be purchased?

A. I don't know.

Q. Does your \$1,500 mean the price of this apparatus in place?

A. \$1,697 means my estimate of the price of the apparatus in place.

Q. Is this something that is kept in stock by manufacturers?

A. No, can't be; because there are different lifts of these hydraulic elevators. I don't know what their habits are—

Q. Then it would be necessary to design these first, would it?

A. To the extent of taking the top measure, getting the distance you want to lift your stuff; the manufacturer would furnish the rest.

Q. What would the apparatus cost, not in place, but f. o. b. cars at the place where it is manufactured?

A. I don't know.

Q. Do you know anything about it?

A. Yes.

Q. Then tell us approximately what it would cost f. o. b. cars at the place of manufacture?

A. Approximately, I cannot give you that. Of course I am not a sales agent. It is my estimate it would cost about \$1,500 or \$1,600 for the lift to be 16 feet which is there, and the necessary apparatus that goes with it, that is the amount in round figures I should judge it would cost. Of course the books are the best evidence. You have the records and you have the invoices and the bills.

Q. The books are not the best evidence of what you know about it, that is what we are trying to get at. Now, then, how can you get anything like an accurate estimate of what it will cost in place without knowing first what your manufacturer's cost would be?

2527 A. Just as I could tell you, being skilled in the art of the probable value of a horse, by looking at it, and what I think he is worth and what I would be willing to pay for it, the same process.

Q. Let us see if it is. You judge the value of a horse by comparing that horse in your mind with what other horses will sell for?

A. It is an intricate process of unconscious cerebration.

Q. How can you judge the value of this thing without knowing what something else just like it does cost by your horse process?

A. Well, such a statement is correct; I have no doubt I have in my mind the average cost of a number of those which I have seen elsewhere, but I did not take the trouble in this case to do so. As I said before, the true and exact cost can be obtained at once from your vouchers.

Q. Having these things in your mind, where you are looking at the horse, your mind unconsciously gives you the benefit of them. Let us look at this and you tell us what in your mind the manufacturing cost of this would be?

A. I shall have to decline to answer that question. I think it is worth about, nearly \$1,700 in place there and refer you to your own books if you want to know the exact cost.

Q. I have already told you, what we are after is what you know.

The MASTER: I think the witness has explained what he knows now.

Q. Then what would it cost to install this apparatus, or rather what in your estimate did you take as the cost of its installation?

A. \$1,697 was what I have given you here as the total structural cost installed, and somewhere about \$1,500 as the price probably delivered.

Q. Delivered where?

2528 A. Here.

Q. And your \$1,697 is obtained by adding to the \$1,500 supervision, general management, interest and taxes?

A. About that, yes.

Q. So that it does not include the item of erection about which I asked you?

A. Yes, cost delivered here \$1,500. I should perhaps add a rate for your contractor to put it in that way.

Q. I want to know what these things would cost or whether you know what it would cost?

A. I wish to say with the utmost emphasis and frankness that I told you repeatedly this is an estimate and if you want the exact facts you have them in your own books and vouchers and it *is* a futile piffle, to use the phrase, and at which you laughed a good deal yesterday.

Q. In other words, is that a brief way of stating that you don't know?

A. I know well enough to know that is the outside limit of value which I wish to place.

Q. If you know, will you tell me what it would cost to install it?

Mr. BYERS: I submit the witness has fully stated what his judgment is and how he got at it and all about it.

The MASTER: He has not stated a word about the cost of installation.

Mr. BYERS: He has twice stated it was included in this cost of \$1,697.

Q. I want to know how much he included; if he don't know, let him say so.

A. I told you very frankly I didn't know anything more than what is in my general estimate.

The MASTER: Do you know what it would cost to put 2529 it up?

A. After it arrived here?

The MASTER: Yes, that is what he wants to know; if you don't know, just say so.

A. I can give you a rough estimate, if you want; if the Master wishes to know, I can do it.

The MASTER: That is the question. Answer it if you can.

A. I should think after it landed here, by the time they got the platform sunk and the hole bored for the plunger and the foundations for the engine and hoisting machinery, in the neighborhood of \$200 or \$250 would have been spent in addition to what they probably paid for the machinery to the factory. But of course, as I look at it, their own vouchers and books will give it exactly.

Q. Now, then, tell us the name of some available manufacturers of these apparatus.

A. I can't recall one.

Q. Tell us the last apparatus of this character which you installed or which was installed under your supervision, I mean as to date, the most recent.

A. In gas works?

Q. Or any other works?

A. I think somewhere about 1900, in Fostoria; I didn't pay very much attention to it.

Q. Do you know whether they put one in or not?

A. They did, to punch their coke up to the platform of the water gas process.

Q. That is the extent of your experience with reference to installation for the purchase of apparatus of this character?

A. As far as I can recall at present.

Q. Did you write any letters to anybody and ask them what this cost?

2530 A. I don't know what my assistants may have done; I certainly did not, because I didn't take the trouble.

Q. Now, turn to section 22; will you please without going into details, specify any apparatus covered in that section which you have recently bought or sold or as to which you have information as to recent actual prices?

A. I have been in the employ for the city of New York for the last five years as an estimator and consequently not actively engaged in the business, but I have had to buy a lot of grind stones, emery wheels, and I have paid for anvils, and a complete soldering outfit, counter-shafting, and I have rather a complete shop of my own. Of course the Buffalo forge drill press and screw cutting lathe are standard materials, so that I have not been forced, as your engineers

have been, like myself, to make inquiries of people who dealt in them.

Q. That I don't think answers my question exactly. Have you specified each of the things here which you have either bought or sold recently or of which you have recent information as to the actual prices paid?

A. Grind stones, emery wheels—

Q. I asked you whether you had specified it?

A. Yes.

Q. Now, digressing for a moment, on your direct examination you stated there were a number of these buildings that had been built out of scraps lying around and that were useless for any other purpose; will you tell us which buildings they were?

A. Particularly, what you call the oil barrel store house, is a sort of a bird cage arrangement where the men found it convenient to pile the barrels outside of instead of inside.

Q. What other buildings?

2531 A. Then you have what you call the fire brick store house which is also of the same general character, scrappy construction, for instance, you mentioned the old holder oil tank there which happens to be an old boiler turned up side down with the steam dome used for the purpose of drawing oil from it; and there happens to be another old boiler—

Q. I asked you about buildings built out of scraps—if you can just concentrate your mind on that I will appreciate it.

A. The coke shed for instance which is specified across the street is at the present moment a very old building and in scraps—

The complainant moves to strike the answer as not responsive.

Q. You stated certain buildings were apparently built out of scraps, boards, and I ask you to name them, and you talk about boilers and things like that, and you name two small buildings; were there any other buildings that in your judgment were built out of scraps of boards, if so, what were they?

A. You mean wooden buildings entirely?

Q. If you know any brick buildings built out of scraps and boards put them in?

Mr. BYERS: Didn't you put in scraps of boards? The witness I think stated scraps.

A. For instance, you have what you call a rubbish kiln which is valued at a considerable amount of money; this is a brick building drawn with a great deal of care and built out of old brick.

Q. You say valued at a considerable amount of money, how much?

A. I forget, I will look it up.

Q. I wish you would.

A. The structural cost new \$23.18; present value \$11.59; which was built out of old brick and has no value at all except that
2532 it is useful for the purpose for which it is intended.

Q. Do you know anything that has much value that is not useful for the purpose for which it is intended?

Mr. BYERS: That is hardly a proper question.

(Question withdrawn)

Q. Can you identify any other building in addition to those you mentioned that you claim is over here and built out of odds and ends of lumber?

A. There is a lean-to against the purifying house, which is not built out of lumber but is made out of an old column of some corrugated iron.

Complainant moves to strike the answer as not responsive and asks that the question be read to the witness.

(Question read)

A. For instance, the dipping trough—I don't know whether you call that a building or a piece of machinery—looks as though it was built out of picked up lumber, and it is not in good condition.

Q. What is the dipping trough used for?

A. Dipping services in tar.

Q. And the tar trough is used for what?

A. Dip service pipes in tar.

Q. When you say dipping trough and tar trough, do you mean the same thing?

A. Yes. That is about all I can recollect at the present moment.

Q. If you think of anything else, let me know. Now take page 28, you have a Davidson pump 6 by 8 by 12; how recently have you bought a pump of this class, or has one been bought under your supervision so that you have some personal knowledge about it?

A. Are you referring to the oil pump there, are you not?

(Question reread.)

2533 A. It has been a good while since I bought a pump of that sort; that price is altogether too high; I don't know how much too high.

Q. Do you know what a pump like that is worth in the market?

A. Looking at that now I consider \$250 a big price for it.

Q. Do you know what a pump like that is worth in the market?

A. No, I don't know; I should consider \$250 a big price for it. I recall it, it is underneath the fence there in the brick house where you unload oil, if that is the one.

Q. I don't know whether it is or not; I supposed you were familiar with those things; do you know really what pump this is that is referred to?

A. That is the one I assumed used for pumping oil out of the tanks.

Q. Did you just guess at this \$500?

A. It is evident I did; I overestimated it, I can see that now, since you called my attention to it; I probably over-estimated it double.

Q. You found, didn't you, when you checked with the reports of our engineers that \$250 was about right, and you had not checked with those reports when you made your Exhibit 23?

A. As a matter of fact I have not used your engineer's reports in any manner to check my work; I wouldn't look at them.

Q. Who did tell you this was wrong?

A. Nobody until you brought it up.

Q. You just hadn't given it any consideration?

A. It was evident to me at once that it was one of those slips I and everybody else will make.

Q. Now, you have under section 29, station meter; how are they customarily bought, installed or not?

A. The maker of a large station meter is expected to deliver that in position and in perfect working order.

Q. Then if I understand what you mean is that they are customarily bought installed; that was the question, whether they were or not?

A. The word installed may mean a great deal. It may mean putting in the foundation, in fact almost a building around them; it may mean simply they will put the meter in.

Q. What is the customary method?

A. There is no customary method beyond what I have stated to you, to make the maker entirely reasonable for the accurate performance of the meter.

Q. Do you know who builds those meters?

A. You mean these big station meters?

A. Yes.

A. The Goodwin people, the American Meter Company; you can see it on the label.

Q. It is customary for them to sell them at a price which includes the foundation and the meter in place?

A. I do not think they put foundations in; I think they furnish a drawing and you do it and then they put it on top. The main point is to guarantee the accuracy of the performance of the meter itself.

Q. By the way, I forgot something a while ago. Tell us what gases generated in the making of water gas have deleterious effect on brick?

A. All the sulphurous gases have a deleterious influence straight through.

Q. What are all these sulphur-us gases that have this effect on brick?

A. It is impossible to say.

Q. Can you name any of them?

A. Well, more commonly known as sulphuretted hydrogen, known by its smell.

Q. Do you know any other?

A. There are a lot of gases. You are asking me a question the best chemist of gas in existence couldn't answer; men who spend their lives working on gases, if they are the real stuff, will tell you flat-footedly there is lots of gases that they have not succeeded in separating.

Q. I asked you whether you could name any other?

A. No, I can't; I am not a chemist.

Q. Do you mean that the chemists who have devoted their lives to it could name but one, which you have named, the odorous gases?

A. You are asking me to speculate.

Q. You speculated a moment ago by telling us what these chemists couldn't do.

Mr. BYERS: This is all argument; it has cost too much money to fool with those things.

Mr. GUERNSEY: How long did you cross examine one of our experts?

Mr. BYERS: I was trying to get somewhere all the time.

Mr. GUERNSEY: A great deal depends on the point of view.

The MASTER: You claim it is satan rebuking sin.

Q. I notice a curious thing in this meter house to me; that is the brick you figured 1.6 cents, why was that?

A. Isn't that the same as \$16 a thousand?

Q. I think it will give you the same result; how did you happen to figure them by the cents, or do you know?

A. No; I think I am responsible for that.

Q. Then why was it?

A. I had very little time and hustled along and put it in in that way. Remember we didn't begin this thing until a few weeks ago.

Q. When was it?

2536 A. The computation on this I should say began six or seven weeks ago.

Q. Did you look up that date I asked you about when Mr. Hazard came here?

A. No, I did not. But that was about the time the computation began. I forgot to say that I brought the Cleveland reports here.

Q. I thank you, I will look at them.

A. Also such correspondence as I had in regard to machinery of various manufacturers.

The MASTER: Will you turn to your report at page 83?

A. I have it.

The MASTER: The figures you get there are from the books?

A. From the books of the company.

The MASTER: They were furnished you?

A. By the city's accountants.

The MASTER: Now I notice here beginning with 1906, the last column gives the total cost of manufactured gas; how many months is that?

A. For two months.

The MASTER: At 67.14 cents; and then I find in 1907, 64.90. Is that correct?

A. Yes.

The MASTER: Then for 1908 it is 63.50 cents?

A. Yes.

The MASTER: Is that the total cost?

A. That is the total cost at consumer's meter.

The MASTER: Now I notice 59.72 cents for the whole year, is that it?

A. Yes.

The MASTER: What is the 63.50 cents for, for the same time?

2537 A. That is for the whole year ending February 1908.

The MASTER: 64.90 cents, what is that for?

A. For the year ending February 28, 1907, 64.90 cents.

The MASTER: Now the 62.56 cents, what is that for?

A. That is for the ten month- ending December 31, 1909, 62.66 cents.

The MASTER: What is 65.30 cents for?

A. That is for the whole year ending December 31, 1910.

The MASTER: What is the 62.74 for?

A. That is an average of four years ending December 31, 1909, 62.74.

The MASTER: Now, then, what is 63.33 cents for?

A. That is the average for five years ending December 31, 1910, 63.33.

The MASTER: That is not for the year, but the average for four years and the other an average for five years?

A. Yes.

The MASTER: That 65.30 cents for the year 1910 includes these attorneys' fees and that \$10,000—\$15,602?

A. Yes. About \$16,000 or \$17,000 over and above the preceding four years.

The MASTER: So that the average for the whole time including that is 63.33 cents?

A. Yes.

The MASTER:

Q. Separating that from the five years would make six cents difference?

Mr. GUERNSEY: That six cents was added on account of depreciation.

A. Residual depreciation being depreciation not able to be cured by thorough repairs, I added six cents on top of the 63.33 cents.

The MASTER: The actual cost of gas outside of that you figured and average of 63.33 cents?

A. Yes, sir; including—

The MASTER: You included 65.33 for the year ending 1910?

2538 A. Yes.

The MASTER: There is another matter here I want to understand. You will find it on page 76.

A. I have it.

The MASTER: Now what is that figured on here, for instance, is that figure on the whole amount of pavement?

A. Pavements claimed by the company \$204,094.

The MASTER: Do you figure that on the whole length of the pavement that are now over or was, December 31, 1910, over mains?

A. I do.

The MASTER:

Q. Can you tell me by reference to the inventory the amount that you figured, the number of feet?

A. On page 66, section 86, I have the items as follows: Asphalt on concrete—

The MASTER: That is not answering my question. I want the whole number of feet that are figured as being over mains, don't make any difference what kind of pavement.

A. On page 68, section 87: Cost of lifting pavements on street gas mains the whole length of pavements claimed to be over street gas mains from the records of the company is 443,577 lineal feet.

The MASTER: That is what I wanted. Referring to the inventory, is that the number of feet you figured?

A. That is the number of feet I figured for lifting pavements; and then I had figured the cost of making pavements by the square yard.

The MASTER: How much did you put that at?

A. On page 66 I gave each kind of pavement, the number of square yards of each kind of pavement, the price per square yard and the sum total of the various kinds of pavement, amounting to 112,045 square yards, \$204,994. or about \$205,000. in round figures.

2539 The MASTER: This \$204,994. and \$28,242. includes the cost of lifting the pavements and replacing them and laying the mains for the entire 443,577 feet?

A. It does.

The MASTER: Page 66 gives the items and amount you figured on the different kind of pavement?

A. Yes, sir.

The MASTER: How many lineal feet will make a square yard?

A. I can give you an average by taking 112,045 square yards and dividing it by the total length in feet, which will give you the fraction of the yard to each foot.

The MASTER: What is the width they have to replace pavements?

A. Well, about three feet, I should say; I have it liberally worked out in the blue print exhibit.

The MASTER: Three feet wide and three feet long would constitute a square yard?

A. Yes.

The MASTER: Every three feet there will be a square yard of pavement to lift and replace?

A. That is with the larger size mains.

The MASTER: The average will be about two and a half?

A. The smallest ditch to work in is about 18 inches. About as little pavement as you can cut is about two feet, and if you don't look out and give the men their way, they will have two feet and a half.

Mr. GUERNSEY:

Q. Will you turn to page 83 of the inventory and tell me what the reasonable value of the one vapor extractor as there specified is in place?

A. I lumped that whole apparatus at \$60,000.

2540 Q. I know you lumped it. Do you know what the reasonable value of one vapor extractor such as is described here is in place?

A. No; I didn't even know you had a vapor extractor there when I got to that.

Q. You didn't pay any attention to details of that kind?

A. I happen to have in my possession a contract for almost exactly the same outfit you have here at \$45,000 and looking over the contract and finding it was equivalent capacity, nearly, I made such additions as I thought necessary and let it go at that.

Q. Where was that apparatus covered by that contract to be erected?

A. It was erected in Cleveland.

Q. When?

A. A few years ago.

Q. How long ago?

A. I don't recall; not more than seven or eight years at the outside.

Q. Look at the contract and give us the date?

A. I haven't it with me.

Q. What was the size of the water gas sets?

A. Three 8½-foot water gas generators.

Q. What did the contract specify to accompany them in the way of accessories?

A. Everything necessary excepting the buildings.

Q. Did it cover foundations?

A. Oh, foundations, no it didn't. I have added those separately for the apparatus in this case.

Q. That contract is the knowledge you have which is the basis of your estimate on what apparatus is covered by page 83 of the inventory?

A. It is authentic knowledge, second only of course to your books, which of course is the best evidence every time.

2541 Q. I will reiterate as frequently as you do—the fact is what we desire to learn is not what the books show, but what you know; now to go back to the question, is that contract or copy of that Cleveland contract the only information you had as to the basis of your estimate of the apparatus described on page 83 of the inventory?

A. It was the only information I used.

Q. What other information did you have if any, that you could have used?

A. I can't answer that question; it is too broad.

Q. Did you ever buy a water gas set?

A. I think I told you yesterday that I settled for a little six foot set; I didn't buy it.

Q. Aside from that little set in Fostoria—

A. We went over it yesterday.

Q. All right. Will you produce this Cleveland contract for us this afternoon?

A. I think I have it; it is \$45,000. I can tell you what it is.

Q. I want to know whether you will produce it here for us this afternoon?

A. I will if I have it complete. I have certainly a memorandum. If I have it complete I will be glad to produce it if the Master cares to see it.

Q. If you haven't it, will you send for it so that we may see it so that we may have your basis for your estimate to use in our cross-examination?

A. I will look it up and bring it along.

Q. Who gave you that copy of the contract?

A. I shall have to decline to answer. I have it.

Q. Of course I don't want to ask you, if it will embarrass you at all to answer it, I won't press the question. It would embarrass you to answer, and I presume that is the reason for your refusal?

A. I shall have to decline to answer.

Q. Or is your reason purely because you are arbitrary?

Objected to on part of defendants as being immaterial.

The MASTER: I don't know that it is material.

Q. Now do you know the present value of any single item of apparatus mentioned on page 83 of the inventory?

A. I didn't figure out any of them, having the sum total near enough for the purpose.

Q. I don't think you understood the question?

(Question read.)

A. I make the same answer.

Q. Do you know the value of any single item of apparatus?

A. I did not estimate, consequently can not know.

Q. Turn to page 111 of the inventory.

A. Yes.

Q. Do you know the present value f. o. b. cars at the place where it is manufactured either of the pumps mentioned there, Benson or Warren?

A. No, I looked them over and calculated they were worth a couple hundred dollars a piece and let it go at that.

Q. Then you don't know the value of either of them at the place of manufacture f. o. b. cars?

A. I haven't the price list.

Q. Can you answer whether you know it?

A. I do know. I say about \$200 the outside limit.

Q. How much variation is there in the size or capacity of these pumps?

A. The pumps you will notice in duplicate, 6 by 7 by 10, large size; then they go on down 4½ by 3½ by 6. They seem to be of about those two sizes.

2543 Q. What would be the minimum price f. o. b. cars at the place where it is manufactured of any pump mentioned on this page just referred to?

A. I thought as I look- in the door I thought some about \$70 and others went up considerable higher.

Q. Do you know what the price of either of those pumps is f. o. b. cars at place of manufacture?

A. No, I didn't take the trouble to write for a price list; I presume you did.

The MASTER: I think that is a complete answer to that question.

Q. Do you know what it would cost to install either of those pumps?

A. Do you mean the foundation?

Q. I'll change the question. The total cost that you would have added to the price f. o. b. cars where it is manufactured, to get the pump in place in the works, ready for use, without any overhead charges in it?

A. I took it for granted looking the matter over, a matter of general judgment entirely, about \$200 as about what these pumps would cost installed, foundations and piped up. I think I was right about the matter. I still think I am perfectly right about the matter. I know it is considerably over-estimated in favor of your company.

Q. All of your estimates have been made over-estimates?

A. If I have made any serious variation amounting to anything it has always been in favor of the company, you will find.

(Question repeated.)

(Answer repeated.)

(Question repeated.)

A. First of all, I don't know freight rates on pumps. I judge that the smaller pumps would be built at about \$70 and \$75
2544 net. The larger pumps about \$200 to \$250 net. That the average would fall somewhat below about \$160, and that about \$40 each on an average would cover the amount necessary to get them ready to go into action; that was all that I did.

Q. Can you tell me as to either of the pumps which we have been discussing what the additional cost would be taking the pump f. o. b. cars at the place where manufactured, and incurred thereafter until the pump is installed in the works without overhead charges?

A. I have already stated that as nearly as I can. I did not send for a price list.

Mr. GUERNSEY: It may be conceded that the witness did not send for a price list.

The MASTER: I think he stated everything necessary.

Q. Now, turn to section 44 of your report and take the relief holder at page 36?

A. Yes, I have it.

Q. Now that holder you estimated at so much per thousand cubic feet of gas?

A. \$175. per thousand cubic feet of gas contents.

Q. Now how do you get at a figure like that \$175.

A. Per thousand cubic feet gas contents—because in the case of the inventory in New York City there was a score or more of these old-fashioned gas holders with practically tanks just like it and about \$175. per thousand cubic feet contents appeared to me to be a very liberal estimate of the cost of the construction of such a holder at the time when it was constructed.

Q. Now, boiling that down, you took it from a cost you put on the New York holders?

A. Yes.

Q. Did the Master in New York accept your valuation?

A. He did not.

2545 Q. Did the court accept your valuation?

Objected to as not the best evidence and immaterial.

The MASTER: I don't think so myself.

A. Do you refer to the Supreme Court of the United States?

Q. No, to the lower court.

Objected to as immaterial and not the best evidence.

A. It would be difficult to answer that question.

The MASTER: What has that to do with this case?

Mr. GUERNSEY: The only materiality I claim for it, the witness has testified he was accepting and using here valuations that had been to such an extent discredited in New York that they were not accepted by the Master or Court.

Q. Now, then, how did you get at the \$175 in New York?

A. Because I and my assistants had to compute a very large number of small gas holders of the general appearance and size of the old relief gas holder you have here. As soon as I looked at it I recognized an ancient acquaintance and put it down \$175 per thousand cubic feet.

Q. Have you any idea what the question was?

A. Yes; how did you get at it.

Q. Did you get at it in New York by coming out here and recognizing this holder?

A. I supposed you referred to the value per thousand cubic feet capacity.

Q. How did you compute in New York this value of \$175 per thousand cubic feet capacity, what basis have you for that?

A. Please read my previous answer.

(Previous answer read) to which the witness added: which is the price I had found to be a good average in New York City.

Complainant moves to strike the answer as not responsive and asks that the question be reread.

2546 The MASTER: I think that is. He said in his judgment that was a pretty fair average.

Mr. GUERNSEY: The question is how he got at this computation in New York.

The MASTER: I don't know whether he explained it fully or not; if that is what he intended for it.

Mr. GUERNSEY: If that is the way the witness wishes to be understood; I didn't so understand it. I want to ask one or two other questions.

Q. When were those holders of this size in New York built?

A. I can't answer that question, but I can say that they are old holders, of course.

Q. Naturally.

A. Yes.

Q. And a holder of this size would naturally be older in New York than in Des Moines because New York outgrew this holder much sooner?

A. I beg your pardon—New York still has horse cars and small gas holders.

Q. Didn't New York generally outgrow the holders of this size sooner than Des Moines did?

A. No; it has got holders smaller than this and in use. So it has not outgrown them.

Q. What size holders are they building in New York now?

A. I think about five million cubic feet capacity, the smallest.

Q. What is the largest?

A. Fifteen million cubic feet.

Q. What are they building?

A. Fifteen million cubic feet.

Q. When, so far as you know, was the last holder built in New York with a capacity of about 175 thousand cubic feet?

2547 A. I should judge about the same time as this, 25 or 30 years ago, as the holder here I mean, about the same time.

Q. They were built of that size for use in New York at that time?

A. Yes.

Q. Now, then, did you ascertain in order to make the New York figures, what holders of this size were costing at the time you made your figures in New York?

A. I had some of the figures of Tom Rowland who was a big gas contractor in New York City. I had the figures of others as to the matter of cost, the results of some investigations of books, and for the time and when this type of holder was being built I carried in my memory as being just about as near right as you can get it, did actually cost then \$175 per thousand cubic feet.

Q. Then as nearly as you could ascertain in New York the holders of this class cost when they were built in New York 25 or 30 years ago, \$175 per thousand cubic feet?

A. Yes, meaning by that holders with brick tanks anchor columns and usually with one lift and sometimes with two lifts, but not over 200,000 cubic feet capacity.

Q. You took the cost of these holders in New York 25 or 30 years ago as your value on this holder in Des Moines as of January 1st, 1911, or November 31, 1910?

A. I did, it being the best I could do, without access to the books; but it turns out on comparison with the books, that the estimate made at that time subsequently proved very close as to the structural cost.

Q. Have you compared this with the books?

A. Personally no.

Complainant moves the witness' statement as to comparison as being incompetent, hearsay and secondary.

2548 The MASTER: So far as that question is concerned, I do not understand that he any more than meant to say in the absence of the books.

(Last answer read, to which the witness added): In other words, the accountants for the City were overhauling the books——

The MASTER: The books are the best evidence.

Q. Do you mean the accountants for the city of New York?

A. For the city of Des Moines were overhauling the books.

The MASTER: Do I understand you to say you computed this rate of \$175. per thousand cubic feet of gas which they would hold?

A. Yes, capacity of gas.

The MASTER: Did you compute the larger holder at that rate?

A. No, the large holder I computed at about 100. per thousand cubic feet capacity, the million cubic feet holder. The smaller your holder gets the larger the cost per thousand cubic feet capacity.

Q. Did you ever buy one of those holders, or has one been bought under your supervision so that you know the actual price from your own knowledge, paid for one at any time?

A. Let us see—I forget the size of the holder at Fostoria. The holders at the Laclede Gas Works were quite good size for that day, but I forget their capacity.

Q. You mean the St. Louis Laclede Gas Works?

A. Yes. And the holder at Durham, North Carolina, was quite a small one and quite costly. My figures are placed on the New York results in this case, on numerous computations.

The MASTER: I notice you computed the 300 thousand cubic feet holder only at \$150.

A. The 300 thousand is comparatively old-fashioned; they were expensive things in those days; they are getting cheaper now.

2549 Mr. BYERS: I would like to have brought down at the convening of court this afternoon the two record books containing the records of the meeting of the directors and stockholders of the Capital City Gas Light Company and the Des Moines Gas Company which we had here the other day.

At this time an adjournment was taken until 1:30 P. M.

2550

1:30 P. M., FRIDAY, August 18, 1911.

WILLIAM D. MARKS continued on cross-examination by N. T. Guernsey, testified as follows:

Q. Referring to this holder in this holder the lift is made of what, steel?

A. Probably not. Probably of wrought iron. It is 34 years old.

Q. And the tank is made of brick?

A. Yes, sir.

Q. Is that an underground tank or not?

A. Yes, most of it. I noticed one thing the rim stuck up a little higher than usual above the ground.

Q. You have depreciated it here seventy per cent haven't you?

A. Yes, sir.

Q. So far as the physical condition of the holder itself is concerned the holder is all right isn't it?

A. No.

Q. What is wrong about it?

A. It is 28 years old and it *it* is my opinion that it will not be safe after it reaches forty years of age.

Mr. GUERNSEY: I move to strike the latter part of the answer out as not responsive.

Q. Now what is there in the present physical condition of this holder tha- is not good?

A. Do you mean I should specify flaws and defects Qerceived in it in particular?

A. I want to know whether as far as physical structure is concerned it is in good condition, if not what is wrong with it.

A. It is another case of the old man, it is doing its work 2551 well enoug- but it won't last much longer.

Q. Now you think that the wrought iron is about done?

A. It will be done in about 40 years.

Q. You don't mean that exactly do you?

A. Forty years after the time it was put in.

Q. How many years from the present time?

A. Twelve years more I think.

Q. Are there evidences that you have been able to perceive of deterioration in this wrought iron?

A. It is covered with tar partly used I think as paint and partly brought up in going up and down. There is another conviction that makes me more confident as to 40 years limiting its life and that is the fact that where you use it as a relief holder you are continually running it up and down. It is not like a storage holder which in a quiet way goes up and then goes down slowly but is a holder which goes up and down a good many feet a good many times in a day.

Q. Now going back t- the question again what if any evidences of deterioration in the wrought iron did you observe?

A. Nothing excecot the general appearance that I spoke to you of.

Q. You mean it was painted and had tar on it?

A. Didn't look clean and fresh and in good shape.

Q. Now what was there aside from the paint and tar that indicated depreciation?

A. I had ni opportunity to do anything more than form a general opinion in regard to it.

Q. That means I suppose you did not observe anything that did indicate deteri~~ro~~at~~ion~~ don't it?

A. If I had not known its age, being perfectly frank with you about the matter I would not have looked after it as sharply as 2552 I did, and I would not have depreciated—I may say if you

wish me to put it another way that I depreciated it on its age rather than on close inspection which I might make.

Q. How much money will it cost to replace this holder itself?

A. You mean just the iron tank.

Q. Yes. The brick work has not depreciated very seriously has it nor the excavation nor foundation?

A. I should think it would cost about half as much as the structural cost, about fifteen or sixteen thousand dollars to put a new tank in, but I don't think any engineer would ever be talked into putting a new holder in the tank.

Mr. GUERNSEY: I move to strike out what he thinks about what an engineer would do as not responsive.

Q. Getting at half, you mean half of what, half of thirty thousand?

A. Half of thirty thousand, yes.

Q. How much does that lift weigh?

A. I don't know, because I don't know the amount of water it throws as they call it.

Q. What is the size of it?

A. Of the holder?

Q. Yes? I don't mean in cubic feet, but what is the diameter of it and height of it.

A. I think it is on the blue print.

Q. Well pass that for the present. I see I have here that this throws five inches. Now can you tell us about what the weight would be?

A. That was not furnished to me at the time.

Q. No, I have furnished it now.

A. Are there counter weights on it.

Q. I think not.

A. The weight of the holder, that is the weight of the iron
2553 in the holder is measured by the depth of water or weight of the depth of water which it displaces you know and it would be the weight of the depth of water—if it measure five inches, about five inches deep a disc is about the diameter of the tank I presume knowing what the holder is at the bottom, whatever it might be.

Q. Just figure the weight for us there.

A. The weight of the water?

Q. Weight of the holder?

A. You say no counter weights on it.

Q. No counter weights and throws five inches.

A. Displaces five inches you say.

Q. Yes.

A. Will you give me the diameter. In what position does it throw five inches when it is full up at the top?

Q. Yes. 80 feet is the diameter.

A. The area of a circle is equal to pi into the square of the radius and the radius is 40 feet and the square of that is 1,600 feet and pi is taken in this case only roughly about 22 sevenths so I divide by seven and multiply by 22 and that gives me 5,060

and you tell me that the thickness of the displaced water is $5/12$ of a foot, about a half foot, but call it $5/12$ and that if my figures are correct gives me about 2,110 cubic feet of water displaced and fresh water weighs about 62 and a half pounds to the cubic foot and multiplying about 62 and a half pounds to the cubic foot you get 131,875 pounds, that is if my figures are correct, they are made hastily.

Q. So that you figure this wrought iron costs something over ten cents if you make it \$15,000.

A. No, I beg your pardon I simply; use them accepting the statement made to me with regard to this holder and I have told
2554 you if these statements are correct that this disc of water will roughly weigh 131,875 pounds.

Q. Well is that the way you ascertain the weight of the lift?

A. If correct that would probably be near the weight of the lift, as it is I tell you it is rough rapid calculation.

Q. I don't mean the accuracy of the figures, I think they are approximately correct, I was simply talking of the method?

A. The method is a recognized method of obtaining weight, it is the method of specific gravity displacement of water.

Q. You said that lift would cost about half of the 30,000 dollars in your judgment?

A. In round figures, yes.

Q. So that if this estimate as to the throw there is correct you have estimated that wrought iron something over ten cents a pound.

A. Ten cents a pound in the old days when it was built.

Q. Is that your notion as to a fair price for wrought iron in place?

A. It is not simply fair, used for different wrought iron work in the old days when it was built.

Q. Now then how much will the lift of the million foot holder weigh?

A. I don't know.

Q. How much would that holder be worth at ten cents a pound on the lift?

A. I have not figured that way.

Q. Can you figure it?

A. I can figure the weight of water for you if you give it to me, but I decline to go any further without careful consideration and thought to go further than to act as your computer.

Q. How much excavation does this relief holder require?

A. I didn't figure it.

Q. How deep is the excavation?

A. I didn't figure it.

2555 Q. Well don't you know anything about it?

A. Yes, I know the average value about 175 dollars per thousand cubic feet.

Q. You mean excavation?

A. No, the holder.

Q. That was what we were talking about, excavation. Don't you know anything about the depth of the *depth of the* excavation there?

A. I didn't figure it, didn't examine it.

Q. Do you know whether 30 feet?

A. I didn't examine it.

Q. Can you tell us whether 40 feet?

Mr. BYERS: I submit when the witness says he has not examined it, what is the use asking further?

Q. This is a two lift holder or one lift holder?

A. Two lift holder.

Q. What are the heights of the lifts?

A. I didn't examine them.

Q. Have you any opinion on that question, can you tell us about what the — would be?

A. I tell you I confined myself entirely to the cubic contents and let it go at that.

Q. Your general information is not such you could give us approximately what the height of the two lifts would be?

A. It is not.

Q. Now what would the foundation cost, did you estimate that at all?

A. I meant what I said, I told you I took it as a whole.

Q. To go back if at the end of a dozen years or at the end of 20 years it should develop that this lift was no longer fit for use another one could be put in its place couldn't it?

A. Yes, sir.

Q. And that would not have to be put up at the cost of 2556 wrought iron thirty years ago?

A. No.

Q. And then whatever there is in this structure aside from the lift would be available for use after the time that this lift becomes unusable if that should happen in the near future?

A. Well do you mean that in a technical engineering sense or do you mean it just as a bald statement of a layman's ideas?

Q. Well if I knew what you meant I would tell you?

A. For a bald statement I will answer you yes if you will make a bald statement of a layman's idea for instance not an educated man not a gas man or some of these alleged engineers that you have around the country.

Q. Now then I wish you would be a little more specific. Speaking for yourself and not for the alleged engineers in your opinion would this structure, aside from the lift be useful if it became necessary to renew this lift within five or ten years?

A. You mean would I renew it and repair the holder within five or ten years if it gave out?

Q. No. I asked you whether this would be useful what remained after the lift was gone if the lift should go within five or ten years?

A. Yes, as a car well it would be quite useful.

Q. You think it would be worth while to repair a holder assuming that it would not cost \$15,000 but cost about six or seven?

A. That is a knotty question in one—you see I give the United Gas Improvement Company credit for doing business in a large way. Unless forced by necessity I don't think a concern would replace that holder after it once gave out. They are so much cheaper and better to build larger holders.

Q. This is used for what purpose? As a relief holder?

A. As a relief holder.

2557 Q. And up to what capacity of a plant, what maximum day would it be adequate for that purpose?

A. That is very difficult to say, but it is none too big for what you are doing today.

Q. If the maximum day were doubled it would be adequate for relief holder purposes wouldn't it?

A. Have you watched it? I don't think if it was doubled it would be adequate.

Q. What determines whether or not a relief holder is of adequate capacity?

A. The amount of movement, the rough usage that it gets from being driven up and down as for instance the one there is continually being driven up and down now.

Q. Now can you imagine any relief holder that will not be driven up and down whatever its capacity?

A. To the extent that that is being driven up and down it seems to me it ought not to be used although every relief holder has to go up and down.

Q. A relief holder goes up when you're making gas?

A. Yes, sir.

Q. It goes down as soon as you stop?

A. Yes, sir.

Q. Goes up when you begin again?

A. Yes, sir.

Q. At what intervals do they make gas and stop?

A. I didn't time them.

Q. No, but you know from general knowledge don't you?

A. I should say if they are running right along that holder would move every fifteen minutes on an average the day through.

Q. That would be true whatever the size of the holder.

A. Yes, but not to the same extent.

2558 Q. If it were larger it would not move quite so far?

A. That is it.

Q. If smaller, it would move a little farther?

A. That is it.

Q. A holder is built to move up and down isn't it?

A. Slowly, yes.

Q. Will you say the holder will not be adequate as a relief holder up to a maximum day of five million cubic feet?

A. In my opinion it would be too small although it could be used and probably would be used by a concern a little short of funds.

Q. You- heavy depreciation here is predicated not on physical deterioration, but upon your theory that a larger relief holder would not move so far each time?

A. Not at all. It is predicated on such general information as I was able to gain as to the point at which a holder one of the old fashioned kind would become unsafe, not even broken down but unsafe, regarded as unsafe by gas engineers and that was forty years.

Q. Do you know of any holder that has ever been abandoned because it was unsafe?

A. There is a very large fine one in the old style in Cleveland that has been abandoned for two or three years now simply because regarded unsafe.

Q. How large a holder is it. Give us approximately, I don't care for it exactly.

A. I find upon looking over my list of the People's Gas Light Company in Cleveland that I put in only the holders which were in use leaving out in valuation any statement as to the contents of an abandoned holder so that I cannot give it to you. I can't recall it without going further back into my detailed papers from which the report was prepared.

Q. Can give us nothing whatever as to the size of it?

2559 A. I should think just recalling it that it was about a couple of times anyhow as large as the relief holder which you have here.

Q. How long had it been built before it was abandoned?

A. About forty years.

Q. And what was the reason for its abandonment. What part of it developed an unsafe condition or was it simply like the one horse shay, general?

A. No, when I inquired for the reason for the abandonment the reply of the engineer in charge was that it was unsafe.

Q. Can you give me his name?

A. I can give you his first name, everybody called him Charley, he was a son of the principal stockholder, I think it was Beardsley. If not Mr. Beardsley can tell you who the man is.

Q. Was it abandoned about the time they began using natural gas in Cleveland?

A. I don't know. I simply asked why it was abandoned and the reply was that it was unsafe and they had abandoned it. I went no further.

Q. Do you know of any instance where a holder has been abandoned on account of the deterioration in the lefts?

A. Unless you choose to take this case and the case of a little gas holder. Inwood, New York City, Manhattan. I never knew what was the matter with that. It was abandoned too.

Q. Those are the only two cases you know of of the abandonment of holders?

A. The only cases I recall at present.

Q. And on the strength of that you depreciate us here seventy per cent?

A. Oh no. On the general information which I had from men whose opinion I respected as gas men that forty years was a good life for a holder.

2560 Q. Now the next holder here is the three hundred thousand foot holder. What difference is there in the construction of this holder and the other one we have just referred to?

A. It is of the same general type with a tank under ground.

Q. Wrought iron lifts?

A. I don't know whether they are wrought iron or steel lifts in that case.

Q. And you put that at \$150 a thousand?

A. Yes, by way of an outside value expecting to give you ever-advantage of price I did so.

Q. Didn't you do it because you thought it was right?

A. Because I thought it was right to be sure not to do your company any injustice and if I made any error to make it in your favor straight through.

Q. What I want to get at is whether you have taken your estimates on some broad philanthropic charitable basis or based on what you thought was right?

A. I was trying to get at the truth and give you something to come and go on.

Q. What makes the difference of \$25.00 a thousand feet between this holder and the one preceding it No. 18?

A. The skin of a holder and the skin of the tank do not increase with its cubic contents.

Q. In other words the larger the holder the less per thousand.

A. Yes, sir.

Q. Did you find in this holder anything you could see indicative of deterioration or decay?

A. Nothing except the ordinary decrepitude that comes with age and I gave it a life of forty years and an annual depreciation of two and one half per cent.

2561 Q. Now the million one hundred and thirty two thousand foot holder you put in at \$100 per thousand?

Q. Do you think we would be warranting in figuring this there at ten cents plus a pound if we were trying to itemize the various factors that go into the cost of it?

A. It is a question that I have not take-up. I should have to to have some time to form an opinion as to the price that ought to be put on that work—

Q. How did you get at your value that you put on this holder No. 19 did you take the New York prices for that and simply follow them?

A. Do you mean the 300,000?

Q. Yes.

A. Yes, I took the averages of the old holders of New York. You see it is an old style holder.

Q. How did you get at your \$100 on No. 20, the same way?

A. I had seen a number of estimates and a number of bids on the large new type or steel tank holder of such forms and those would run all the way from \$75 to \$85 a thousand cubic feet capacity, as you get up beyond a million or more than a million running down as the capacity went up. This holder itself, the one now here in Des Moines is not only of most modern workmanship, but in addition to that has an excellent piece of brick work enclosing it. It seems to be true in every way I assume from the way in which it stood that its foundations were excellent and I felt that you ought to have credit for what appeared to be extra pains taken and so instead of taking about \$85.00 or something of that sort plus foundation I

estimated it a round hundred dollars and computed it on that basis and then added overhead charges at 12 and one half per cent making the total price or structural cost of \$1,127,350.

Q. These large holders in New York you have talked about were five and ten million capacity.

A. No, I have not talked about anything but one fifteen million capacity at Astoria, I spoke of five million capacity as showing what we are getting now in New York, as a starting point.

Q. What was the capacity of these holders in New York where you got your eighty and ninety figures if I remember them correctly?

A. You mean seventy five dollars to eighty five dollars. One to two million cubic feet capacity of holders?

Q. Built by what company?

A. If I could recall it, I would, I think it is a Baltimore company and the *ie* engineer at that time was a man by the name of Myer.

Q. What gas company?

A. Built for the consolidated gas company.

Q. Within how many years.

A. Well certainly within the last eight or ten years. This holder here is more finished than most of theirs.

Q. How did you get at the structural cost of your oil tanks?

A. Will you mention the page?

Q. Page 38 of your report?

A. And the section please. There are a series of them.

Q. You used the same method for all didn't you?

A. No, I did not.

Q. Take the first one, what method did you adopt in estimating the value of oil tank 21?

A. Fixing the price of brick work at I think \$18.00 and the cost of your wrought iron work at about five cents, and turning the blue prints and your inventory list over to my assistants, I requested them to give me the result of their computations which they did in this case and oil tank 21 the contract price for that in position was returned to me \$4,180 and checked by figuring the structural cost about 33 cents per cubic foot.

Q. Is the wrought iron in one of these lists worth twice as much as it is in the tank?

A. I never said so.

Q. Who were the assistants that made these figures?

A. Mr. Dobson or Mr. Hasek and I think both of them, one checking the other.

Q. I don't care which one it was. Now this oil tank is steel in brick, is there anything about that structure that is not either steel, brick or cement?

A. Is it submerged top?

Q. The same tank you have been estimating.

A. Tank submerged head type. I don't know whether the head has any supports inside the tank or not or whether the head is suppo-ed to support itself.

Q. I think this is it in Exhibit 16, you can look at the plan and perhaps answer your question better than I can.

A. No. 21 capacity 100,000 gallons. It appears to be of cement and iron and brick and as computed.

Q. You think that would deteriorate 20 per cent in eight years.

A. No, I think it would be out of use in forty years though, and you have got to prepare for it.

Q. What would prevent its use in forty years?

A. If Des Moines continues growing as it is growing you will find it very much in the way won't be large enough.

Q. Need more tanks wouldn't we?

A. Yes, sir.

Q. Now take the next tank, what was your method that 2564 was taken there to get at the value?

A. All of these tanks were computed by assistants and computed in the same way, there were unit values to brick work unit value of concrete and unit value of a pound of iron.

Q. Your brick work was \$18 was it not, each one of them?

A. Brick work \$18, concrete \$7.00 a cubic yard, back filling 15 cents, excavating 50 cents including sheathing, iron work five cents per pound.

Q. Those were the figures you gave them and they *they* made the computation?

A. They made the computations.

Q. You got these figures I think you testified as to excavation and perhaps several of the other matters from Mr. Dobson?

A. No, I would like to make that very clear. I asked Mr. Dobson, I asked Mr. Hasek, I asked Mr. King, I took occasion to ask the contractor on the bridge here, Mr. Wheeler whose name I can rarely recall, and I asked several other people who I thought knew about these prices making note of it every time. My active assistants in this were Mr. Dobson in particular and Mr. Hasek in general. In every case I have taken whatever was suggested to me or brought to me, considered it looked it over, and just as your engineers or any engineers would have to do further advised myself as well as I could as to local prices by any inquiries or lists I could make and when I had gotten to what I believed to be a liberal fair valuation of any unit I fixed this and I gave it to my assistants and they did the computation. I have forgot to mention that my assistants also have an adding machine by somebody in the place which I presume ought to be mentioned.

Q. Isn't it a little curious when you work out these two 2565 tanks you find the smaller cost a little less per cubic foot than the larger ones when about 50 per cent larger?

A. Referring to what?

A. These two tanks we have been talking about.

Q. Being which ones?

Q. Tank 21 and tank 22 section 47 and section 48.

A. If you will go into details of this you will find that the emplacement and excavation for these tanks are quite costly and that

therefore the iron work in each of these tanks is relatively not a small factor, but not a great factor.

Q. About how much is the iron work in the brick tank?

A. You are referring to which one?

Q. The larger one?

A. Give me the number if you please.

Q. 21.

A. 36,800 pounds of iron at five cents, \$1,840.

Q. How much was the iron in the other one?

A. What tank, what number?

Q. 22.

A. 24,700 pounds of iron at five cents, \$1,235.

Q. You explained the fact that the price per cubic foot in the small tank is just under what it was in the larger tank by the difference in the amount of iron used in the two tanks.

A. I did not generalize, these are figures that were turned in.

Q. If that was not the reason what is the reason for it? Naturally you expect as the quantity is larger the price per cubic foot is smaller don't you?

A. I can work it out if you like.

Q. I don't want to spend much time on it. If you can't
2566 tell me without working it out we will let it go. Now I see you have got steel tank here in section 49 that you have depreciated 47 and a half per cent. Is that on account of any physical deterioration in the steel tank or the brick emplacement?

A. It is a question of probably life, forty years.

Q. As far as the physical condition of the tank goes it is in as good shape today as it was when built isn't it?

A. No, of course you know I *put* very little time to look over these works. I have been obliged to go over them rapidly. It looked about the worst in the lot.

Q. Now what was there about it looked badly?

A. Its general appearance.

Q. Did you get at this, that is did you have your assistants work this out as they worked out this other matter?

A. Yes, sir.

Q. And the same thing with the tar separator?

A. Yes, sir.

Q. The same thing with the oil tanks in 1907 and 1910?

A. You mean oil tanks 24 and 25?

Q. Yes.

A. Yes, sir.

Q. This plate No. 28 shows these two oil tanks 24 and 25, doesn't it?

A. Yes, sir.

Q. Now you charged us off for three years seven and a half depreciation on No. 24, don't you?

A. Yes, sir.

Q. And there is nothing to it but steel, brick and concrete is there?

A. That is it.

COURT: What is the life you give to them?

2567 A. Forty years probable useful life.

Q. What life do you give to the ordinary frame dwelling?

A. I will have to refer you to Mr. Summers.

Q. What life do you give to the ordinary brick building?

A. The ordinary brick building according to the Summers' system in bad condition has depreciated seventy five per cent at the end of 50 years. It is impossible of course to generalize because you know perfectly well that in the old country—

COURT: That would make the life of the building then depreciate seventy five per cent in fifty years, be about 62 and a half years life?

A. Something of that sort if you could live in a building when it don't exist, a building three fourths gone in fifty years.

COURT: So you explain this way it is the life of the steel tank and brick here.

A. I am speaking of the useful life not of any question of what might be or what we might possibly agree might be the utmost life.

COURT: Is there anything about the oil that would injure them or affect the steel?

A. On the contrary it would preserve it. It is one of the best preservatives.

COURT: Anything about the exposure there to affect them there on the outside?

A. The action of the weather would rust and injure them. The collection of water possibly on the inside of the emplacement would rust and injure them particularly the bottom underneath the tank.

Q. Are the tanks painted?

A. Not the bottom underneath.

2568 Q. What do you mean by the bottom underneath, the part that is underground?

A. The part that constitutes the bottom of the tub.

Q. You mean the part that is not exposed to the weather?

A. Yes, sir.

Q. Painted before it is put in there isn't it?

A. Usually set in dry cement.

Q. Steel is supposed to last a good while in cement isn't it?

A. Yes, sir.

Q. Otherwise reinforced concrete buildings would not be much good.

A. None of them are sure about them yet. I asked that question of distinguished architects who were building them and their answer is that they will be dead before the building falls down anyhow so they are not interested.

COURT: By actual observation the life of a steel building is unknown?

A. It is unknown.

COURT: That is largely true of these steel tanks isn't it?

A. I think so.

Q. I notice here in section 55 you have lumped off the works yard apparently, is that right?

A. Using the unit values which I gave you a short time ago my

assistants have computed every detail of the yard and then put it altogether. There has been no jumping at conclusions in that.

Q. Can you tell what in the inventory is included under your heading works yard in section 55?

A. Referring to the inventory page 158 well, valve boxes, tar separators, etc., erected at various times covering a period of thirty four years.

2569 Q. You mean the items detailed in the next two pages, 159 and 160?

A. 159 and 160. You wish me to go into details?

Q. No, I don't care to. I notice something here on page 46, you say as company's attendants appeared to be directed to answer no questions merely pointed out the objects, it was impossible to learn anything regarding buried pipes from inspection. How did the silence of the company's attendants affect what you might learn by inspection?

A. Your point is well taken. That was improper use of the English language. May I add by way of explanation that as the attendants appeared prevented from saying anything I went to Mr. Haines and told Mr. Haines I should like to have somebody who would explain these matters to me and he said he would authorize me to use laborers to dig up anything I wanted to in the yard, laborers, of course being at the city's expense, but I did not do so because of the fact that it was an interminable job and my time was limited.

Q. Mr. Haines also told you in that connection didn't he that he refrained from attempting to influence you there because he wanted your estimate to be entirely without any influence emanating from the company?

A. He may have said something of that sort, but I don't recall it.

Q. Now I want to turn to Section 75, page 53, you say that in the distribution system that is the street mains and services you have not used your 12 and a half per cent as overhead, but have added 26 and a half per cent to the cost of raw material and productive labor.

A. Yes, sir.

Q. By that you mean the cost of the pipes, the fittings, and
2570 valves, the material you use for making joints, drip pots and all the other material that goes into a completed main, is that right?

A. That was the fact of the matter.

Q. That is what you mean by your raw material?

A. Yes, sir.

Q. And productive labor, what special significance do you give the word productive there?

A. Meaning by that not including all of the salaries of the officials of the company which are charged to operating expenses and the cost of gas?

Q. Simply the salaries or wages of the people who are directly and solely engaged in the work of laying the mains?

A. And their foreman.

Q. I suppose the foreman would be devoting his entire time to it too.

A. Yes, he would stay right on the ditch.

Q. Now you took here as I understand it the figures that were shown on the blue print, the Buffalo blue print that you produced on your direct examination?

A. Yes, approximately.

Q. Well what does approximately mean?

A. As near as I could get at it.

Q. Couldn't you get at it exactly, for instance turning over to page 57 of your report, you have cast iron pipe three inches, I suppose that means three inches and under?

A. No, just three inch size that is all.

Q. There was nothing under that then?

A. Nothing was given me as being under that.

Q. The reason I asked that was that my recollection is that in the inventory it is inventoried as three inches or two and a half inches or under, something like that.

2571 A. If you look again you will see at the time wrought iron two and one half inches.

Q. I see, depreciation 33 per cent.

A. Yes, sir.

Q. Going back, you took up three inch pipe, you had the number of feet and you took a specific number of cents per foot?

A. Yes, 36 cents.

Q. And that is what your Buffalo plat shows?

A. Yes, sir.

Q. And you did that in the same way all the way down didn't you?

A. Yes, sir.

Court: That included pipe and laying both or just pipe?

A. These figures include all and every expense of laying pipe digging ditch, buying iron, making joints, filling in and everything but putting a pavement over the pipes afterwards, 36 cents per foot for three inch pipe.

Q. And it not only includes that every expense, but it is 126 and a half per cent of that every expense as you compute it. In other words this 36 cents is 26 and a half per cent added to the original cost figures as you made them.

A. This 36 cents per foot is what in Buffalo three inch cast iron pipe cost taking into consideration all the records given me by the city of Buffalo worked out to be, but if you were to take the cost of the pipe and the cost of labor as you naturally estimated it without having all the troubles that arise from running into street railways, running up against sewer inlets, bad weather interrupting you, poor soil, occasional ledges of rock and things that could not be anticipated and would not be anticipated by any engineer purely as a matter of preliminary estimate, then if you sit down
2572 and figure it that way, then I would have to add 26 and a half per cent to what he got to equal what actually happened in the city of Buffalo.

Q. You state here, and I want to get at this so there won't be any misunderstanding between us, you say on page 53 the system of over-

head charges heretofore used at 12 and a half per cent is changed to an addition of ten per cent for undistributed expense and fifteen per cent for contractor's profit making a total of 26 and a half per cent added to the cost of raw material and productive labor.

A. Yes, sir.

Q. Now that 36 cents that we referred to a moment ago for three inch pipe is the cost of the raw material and productive labor plus this 26 and a half per cent is it not?

A. That is it, yes.

Q. And that 26 and a half per cent is figured on pipe and every other article of raw material that goes in as well as upon this productive labor as you defined it heretofore?

A. No, that would not be that way for this reason. If you were asked to make a preliminary estimate in a system of mains you realize at once—so many miles long and you undertake to estimate so many miles of it you realize at once you could not go into details by any possibility as to the extra expenses, you could simply figure the length of pipe in that system, number of feet and probable cost of the ditching for it and then getting that in straight pipe you would have to add ten per cent undistributed charges and fifteen per cent which would cover one of two things: either the contractor's profit if you had the advantage of laying a very large amount of mains at one time or the expenditure for idle men and preparation for short jobs where the company itself keeps
2573 its own men on and does its own work on the installment plan as it is required. That frequently becomes necessary to keep the men on, you do not dare part with reliable men when really they are not earning their wages or are put at something at which they are not good for much.

Q. That don't make it clear to me, what I want to get at is this, whether these figures are 26 and a half per cent more than the cost of the raw material and the productive labor or not.

A. I will try to make that clear to you if you will allow me—

Q. I don't want to know why, but can you tell me whether it is added in.

A. The 26 and a half per cent over the estimate covering cost of pipe per lineal foot for any given number of miles of feet and over cost of ditch for any given number of miles or feet of that, those figures in that scale are what actually happened in the city of Buffalo in the five years preceding the year 1907.

Q. Then there is in these figures no addition over the actual results of the work in the city of Buffalo?

A. As a fact, yes.

Q. Then there has been nothing added in your estimate here to the actual cost or what you estimate would be the actual cost of the material and the productive labor?

A. There has been an addition of 26 and a half per cent or we will say fifteen per cent because of the fact that the work is done interruptedly and in small installments.

Q. That was added to what?

A. Added to what it could be done for in a large way with large gangs to get results, but it is mostly extra labor.

Q. Now let's see about that. Did you make any computation of what it could be done for with large gangs and as
2574 consecutive work.

A. That was the reason that I sought this explanation that I did make these computations.

Q. What did you get as your figures then for the actual cost of doing it?

A. In round figures every one of these figures represents 126 and a half per cent of any estimate I would make on straight pipe or straight ditch work.

Q. These figures represent then the actual cost in Buffalo without any overh-ad added whatever.

A. They are the actual cost in Buffalo done in small ditches without any overhead added.

Q. Now your blue print that you produced on your direct examination and which has just been marked by the reporter Exhibit No. 41 says this, "Note, figures include ten per cent undistributed expense and 15 per cent contractor's profit."

A. Yes, sir.

Q. Now do the figures shown on this blue print show actual cost of doing work in Buffalo or is this note correct, and was there added to the cost ten per cent undistributed expense and fifteen per cent contractor's profit?

A. There was added to that cost as near as we could figure it from the quantities as ten per cent undistributed charges. That made \$1.10. Then in addition to that there was added to it 15 per cent of \$1.10 making \$1.26 and a half on the original hundred per cent. Now it was found as a result of these computations based on the exact data from the city records of Buffalo that the actual facts run from
2575 this in small quantities down to about fifteen per cent lower than that in large quantities. There was a great deal of time spent on this, a month or so I think not only myself but my assistants.

Q. Mr. Dobson and Mr. Hasek?

A. At that time I had not the pleasure of knowing either of them.

Q. I understood you to testify on your direct examination that this blue print marked Exhibit 41, was made up from the records of the city of Buffalo?

A. Yes, sir.

Q. Now do I understand you to say that it was not but that you added ten and fifteen per cent to some computations or estimates which you made at Buffalo? Which is right?

A. I will give you a concrete example of it. If I was asked to lay down a hundred miles of main of a given size or of a number of given sizes I could easily figure the ditch work on it and the straight cost of the iron pipe and the straight cost of lead and open and caul-ing and of handling it. I would find out though that after figuring that that I would have to add ten per cent if I had a hundred mile job to get the cost as a contractor after I had done the best

I could, mind you I have not talked about bends, valves or anything of that sort, I was just estimating miles of pipe. If I add 15 per cent to that contractor's profit I would then get these figures shown in this blue print and I would as a contractor have a hundred miles and expect to make fifteen. But I find and you will find on examining my report elsewhere that owing to the uninterrupted way of doing work on the installment that this cost the gas company in Buffalo, the gas company in Cleveland and Mr. William Henry White for Des Moines, they have all wiped out that profit of fifteen per cent by reason of the conditions under which they are
2576 obliged to do their work with small gangs and in an interrupted way. Is that clear?

Q. No. Now let's back to earth.

Mr. BYERS: I submit that was rather an unkind remark.

Mr. GUERNSEY: If unkind and hurt the witness' feelings I will withdraw it.

Q. Now you said didn't you, this is at page 2306 of the record in this case, "Well in Buffalo I had occasion to originate a graphic system of recording cost in a gravelly or alluvial soil. For this purpose I made a very large number of computations based on the actual records of the cost of laying pipe, water pipe, in the city of Buffalo, New York." Now is that much of it correct?

A. That is correct.

Q. "The whole of it after being tabulated was reduced to a graphical form for sizes of pipe running from two inches up to sixty inches in diameter." Now the whole of it, that means the computations based on the actual records of the cost of laying pipe, water pipe in the city of Buffalo does it not?

A. Yes, sir.

Q. And is this Exhibit 41 the tabulation or blue print of the tabulation showing the graphical system to which you refer?

A. Yes, sir.

Q. Now then is this blue print made up, this Exhibit 41, is that made up from figures based upon the actual cost of laying water pipe in the city of Buffalo, New York?

A. Well in laying water pipe in Buffalo, New York——

Q. Can you answer that without explaining?

A. No, you can't answer a technical question yes or no. They got their pipe——

Q. (Question read.)

2577 A. In the case of water mains in the city of Buffalo, New York, they got their cast iron pipe under large contract- and they also contracted——

COURT: You need not explain but just the fact is this made up from the record?

A. It is made up from the records of the Buffalo City contracts for iron pipe, contracts for ditching in the streets, contracts for laying water mains and the cast iron pipe for gas is of wider weight and shown than cast iron pipe for water. Cast iron pipe for gas is usually laid in small installments, they are compelled to in gas and

only run a short distance out one street and then out another. In the case of water at least the case that we had under consideration there the work was done in much larger quantities and for longer distances and as a consequence I found that what I would figure as the cost of raw material and productive labor for gas taken a large way was less than the actual facts with regard to the smaller way of doing work used by the gas company. The consequence was that to my estimate which I would have made of the cost of laying gas mains on the basis of large and continuous work I was obliged to add not only the ten per cent that would come in in either case in undistributed charges, but also fifteen per cent in contractor's profit in difference in the way and for loss due to laying the main in small quantities by the company.

COURT: Then it is not made up of water mains?

A. There is no water main in that but all work of ditching everything done for water mains and laying cast iron gas pipes substituted.

Q. Now to get back to the question can you tell me directly and without qualifying the statement whether this Exhibit 41
2578 shows the actual cost to the city of Buffalo for the laying of water mains?

A. For the laying of gas mains to the city of Buffalo it shows the actual cost.

Q. Do you mean by that, that is predicated upon figures derived from the books of the gas company or from any other records of the gas company of the city of Buffalo?

A. Nothing except the price paid for cast iron gas pipe by the gas company of the city of Buffalo.

Q. Were those prices obtained by you from the books of the gas company in Buffalo?

A. They were not. They were obtained from the sworn return of the gas engineer of the gas company antedating the era of President Humphreys.

Q. I am not as familiar with these historical epochs as you are, about how many years ago was this?

A. This was 1907 when this happened.

Q. I know, but these prices I am talking about.

A. They were somewhere between 1900 and 1907?

Q. Are you sure that the prices contained on Exhibit 41 for cast iron pipe were obtained by you from a sworn report made by the Buffalo gas company or some officer of that company?

A. By an officer of that company, yes.

Q. Absolutely sure of that?

A. Yes, and not only that, but they are higher than the figures given by this gas engineer.

Q. What do you mean by that, did you take them from the report, the figures shown in the report or not?

A. I took this man's—the statement that was handed to me of this man's oath, this man engineer in charge of the Buffalo gas
2579 Light Company or something of that sort. He was the man who had been busy building it up, who had been with it for

years. He had disappeared then and president Humphreys was in his place. I took his figures and worked from them.

Q. Then these are not the figures he swore to as the actual cost of gas pipe to the Buffalo Gas Co.?

A. They are somewhat larger and higher.

Q. They are not his figures, however?

A. Oh no, they are my own figures selected after a great deal of study and care, a great deal of comparison, doing everything I knew how to get right and put down by myself.

Q. Now as a matter of fact in Buffalo you testified these prices were given you by R. D. Wood & Company didn't you?

A. You mean for cast iron pipe?

Q. Yes.

A. I don't recall it may be, but I don't think I did. Thank you very much for reminding me, I did have them verified by R. D. Wood & Company I know and I think some others. I know I exhausted every means at my power to get right.

Q. I call your attention to this which appears page 533 in the record of the Buffalo case, part of your testimony: "Q. Now I would like to have you state to the commission the pipe costs on which you have based your estimates and for the different sizes. Ans. The pipe costs per shot ton of 2000 pounds delivered on cars in Buffalo have been fixed as follows: 3 inch pipe \$26.80, 4 inch pipe—I beg your pardon, 3 inch pipe \$30.80" will you check these as I read them and see if they agree with the prices on the blue print—"4 inch pipe \$28.80, 6 inch pipe \$27.80, 8 inch pipe \$27.80, 10 inch pipe \$27.80, 12 inch pipe \$27.30; 16 inch pipe \$27.30; 20 inch 2580 pipe, \$26.80; 24 inch pipe \$26.80; 30 inch pipe \$26.80; 36 inch pipe \$26.80. Q. We haven't got any such price as that? Ans. I will stop there. Q. What is this chart you have got, where did you get these figures? Ans. These are the Wood & Co. figures for 1905. Q. And you adopted them? Ans. Yes, sir. Q. Without making an investigation of the conditions here in Buffalo like these conditions stated here? Ans. I assumed them more suitable for my use than even present prices today." Is that what you testified to in Buffalo about the source of your figures on the price of cast iron pipe as given in this chart Exhibit 41?

A. Very probably that. Of course I can't recall so far back exactly what I said in this case. But I am very glad to be reminded I had so great an authority as R. D. Wood & Co. back of my work.

Q. What do you say now whether you got the figures from a sworn statement of an officer of the Buffalo Gas Co.?

A. I did also, also got figures from a good many more besides which I can't recall but perhaps you have dug it up and may be able to direct my attention to it.

Mr. BRENNAN: That record which counsel have defendant's desire to look at the testimony in the Buffalo case from which counsel for complainant has just quoted in his cross-examination and let the record show this request has been refused.

Mr. GUERNSEY: On the ground that counsel for complainant de-

sires to make further use of this book without first turning it over to the defendant.

— Now then is what you testified in Buffalo true or did you obtain these prices from R. D. Wood & Company as 1905 prices?

A. It must have been so if I said so. That must have been the final result of all my hunting around that I settled on these and put them in.

Q. So that these figures do not represent either the cost of pipe in Buffalo or to the city of Buffalo or Buffalo Gas Company, but represent figures given you by R. D. Wood & Co.

A. As I stated the best figures and in my judgment the most accurate figures I could obtain.

Q. Now did you testify on your direct examination in this case page 2307 this way, referring to this chart, "The cost of cast iron mains was taken from the records of the purchase of the city of Buffalo for water purposes and \$1.00 a ton added to the piping used for gas purposes." Did you testify to that in this case?

A. I think that was it. Of course I don't know while you read a sentence in that way how much more comes into the context, of course you can twist it all around.

COURT: If you want to look at it you may do so.

A. This is a long ways back.

Q. This is only a few days ago, I am reading the testimony given here.

MR. BRENNAN: I think the witness is correct there, his attention is not called to the general subject, just a sentence here and there.

Q. Well I will go back and give you the discussion beginning with the beginning of the answer. "Well in Buffalo I had occasion to originate a graphical system of recording costs in a gravelly or alluvial soil. For this purpose I made a very large number of computations based on the actual records of the cost of laying pipe, water pipe in the city of Buffalo, New York. The whole of it after being tabulated was reduced to a graphical form for sizes of pipe running from two inches up to sixty inches in diameter. The basis for the excavation and back filling in this ditch which was used in this place, the ditch being dug under the ordinary difficulties occurring in the streets of any city such as interference of sewer inlets, or going under street railways or going under steam railways or occasional slight difficulties from water small quantities of rock and occasional small quantities of paving and crossings that come up, in other words what might be called the rough and tumble condition of the city street work as is usually the case they kept out of the way of the more expensive pavements as far as they could. Under these conditions I have the actual practical fact of the cost of excavation and back filling in these ditches of various sizes averaging about 40 cents a cubic foot. The question then came up of the cost of the cast iron mains. This was 1907. The cost of cast iron mains was taken from the records of the purchase of the city of Buffalo for water purposes and \$1.00 a ton added to the piping used for gas purposes." Now is that what you testified to on your direct exam-

ination as to the source from which you got this cost of cast iron pipe?

A. You mean direct examination here?

Q. Yes.

A. Yes, and taking pains to be exactly right all of them are not mentioned there. I had the quotations for water pipe, R. D. Wood & Co. and further had every advantage in the accounts of the city of Buffalo and also the quotations for cast iron pipe through the kindness of the director of the public works there what the cast iron pipe were gotten for and in some other cases I don't recall what it was, but finally these figures were fixed by assuming that the lighter cast iron pipe for gas would run at an average of about \$1.00 a ton above the heavier for water. I think that is a fact that is practically accepted all over the country.

Q. I know it is a long way from what we are talking about. Of course we know gas mains are worth more than water mains. These same things you testified here that you obtained from the record of the city of Buffalo for water purposes, then you state on your cross-examination here you obtained them from the sworn statement of the engineer of the gas company of the city of Buffalo—

A. That was equally true.

Q. You testified in Buffalo in 1907 at the time the chart was prepared you obtained of R. D. Wood there?

A. Yes, sir. I think every word of that, every statement is equally true. I have no reason to try to conceal the truth in any way.

Q. Now I want to get back to where I started before you led me off on to this digression. I want to know whether on this chart you took the actual cost of pipe as shown by the records of the city of Buffalo and showed it graphically here or not, whether they are these costs or whether they are something else.

A. They are these figures in this tabulation shown here.

Q. This is one of Mr. Bemis' exhibits in the Buffalo case or copy of it?

A. I don't think Mr. Bemis made an exhibit of this sort.

Q. Who made it?

A. I did.

Q. In the Buffalo case?

A. I don't know about that so far back, you know I have not been able to hire anybody to look the thing up.

Q. Do you know who made this paper you refer to?

2584 A. This one?

Q. The one you have in your hand just referred to in your last answer.

A. I was always under the impression I made it.

Q. Well just let me know whether you made it or you did not.

A. Why of course I made it.

Q. Did you make this up from the books of the city of Buffalo?

A. I did not.

Q. Who did?

A. This is the result of my own opinion straight through. My results from the engineer to whom you refer at the same time my

result from what I was able to learn of R. D. Wood & Company, my result from what I was able to learn from the records of the city of Buffalo, my results from such information as I could obtain elsewhere and I think there is perhaps a dozen other directions from which I sought for information in order to do the square thing by the gas company of Buffalo as near as I could.

Q. Then this statement in your direct examination is not true is it on page 2307 of the record in this case for this purpose I made a very large number of computations based on the actual record of the cost of laying pipe, water pipe in the city of Buffalo, New York, the whole of it after being tabulated was reduced to a graphical form for sizes of pipe ranging from two inches up to sixty inches in diameter. Is that the statement you made in your direct examination that Exhibit 41 is a tabulation of the actual results in the city of Buffalo, is that true or not?

A. It is true and accurate, what you have said is true about various ways in which I got at it.

2585 Q. That involves that tabulation your opinion as well as these actual results that your opinion happened to coincide exactly with these results?

A. Why certainly. Did you expect me to put anything down I didn't believe in?

Q. Don't ask me questions because you might be embarrassed by the answer. Now then this chart, Exhibit 41, does show the actual results of the city of Buffalo over a period of years of laying water pipe in that city.

A. It does not.

Q. Well then I will go back to my other question, is the statement shown on page 2306 of your direct examination in this case for this purpose I made a very large number of computations based on the actual records of the cost of laying pipe, water pipe in the city of Buffalo, New York, the whole of it after being tabulated was reduced to a graphical form for sizes of pipe ranging from two inches up to 60 inches in diameter, is that true?

A. Yes, that is true.

Q. Now then is it true that this Exhibit 41 does show graphically the result of the computations based on the actual records of the cost of laying pipe at Buffalo, New York?

A. It shows that and a good deal more besides as you know from what I have told you and is an expression of my final opinion.

Q. I am asking about this one thing that I want to know. Now you say here on this Exhibit 41 figures include ten per cent undistributed expenses and 15 per cent contractor's profit. Do these figures contain anything added to the actual costs as shown by the records of the city of Buffalo, this chart Exhibit 41?

2586 A. You are getting too far back, I should have to look that up before I could answer you. Good gracious you know that is three or four years ago.

— I recognize the fact that your memory is not trustworthy, but haven't you confidence in your statement on the plat here.

A. Indeed the utmost confidence in that blue print. You can

regard it as my opinion and my final conclusion not only with regard to Buffalo, but also Cleveland and also as a liberal statement for the city of Des Moines.

Q. And recurring to my question it says here figures include ten per cent undistributed expense and fifteen per cent contractor's profit?

A. Yes, that is correct, too.

Q. Now are these items added to the actual cost of this work in the city of Buffalo as disclosed by your examination of the records of that city covering that work?

A. That is a long ways back, three or four years, I think I explained to you that if I had made an estimate for miles of mains at certain fixed costs different from the city of Buffalo that I would have had to add to it ten per cent undistributed charges and fifteen per cent of contractor's profit. That table was gotten up for the purpose of making preliminary estimates as well. It is, however, my final opinion, my verified opinion and the facts on which I wish to stand. I don't recall all that Buffalo business three or four years ago and it would take a good deal of time to read it up.

Q. Now do you know whether the statement in your report is true where you say that the report includes ten per cent and then fifteen per cent to addition to the original cost, I am referring to your report, Exhibit 23.

A. Do I know that is so?

2587 Q. Yes.

A. Yes, I know it is so, I stand by it.

Q. Now then do you know whether these figures shown by Exhibit 41 show the actual cost in the city of Buffalo or show these costs plus ten per cent and 15 per cent.

A. I have used all the English language I know how to use when I say to you these are the actual cost to the city of Buffalo so reported there and further state it was more than the actual cost here in the city of Des Moines.

Q. Now then I wish you would take the matter of excavation for these ditches, what does this chart show per cubic yard or what have you taken as the basis per cubic yard.

A. 40 cents for excavation and back filling on unpaved streets per cubic yard.

Q. Is that what this chart is based on?

A. That is it.

Q. Now take off 26 and a half per cent, what would that give you?

A. Why should you take off 26 and a half per cent? You mean divide by 126 and a half per cent?

Q. I don't believe you could divide 40 cents by 126 and a half per cent. Be about 30 cents a cubic yard if you take off 26 per cent.

Q. So if you have added this 26 and a half per cent your cost of excavation here is based on thirty cents and that includes back filling and all, about thirty?

A. Yes, that includes bare cost of labor, back filling, streets without pavement. It frequently runs down to 15 cents as an actual

fact, but don't hold of course that sort of work where you can get any horse work.

2588 Q. You told us on direct examination Mr. King told you and he was a contractor who had done work in all streets in the city that his excavation for telephone conduits cost 40 cents?

A. Well that was with trials and tribulations of paved streets where I am talking about unpaved streets when you talk about 40 cents with only occasional difficulties that come in.

Q. Did that include removing and replacing paving, Mr. King's 40 cents?

A. Oh where it was outside in cheap pavement yes.

Q. Mr. King told you that?

A. I asked him that, so understood it.

Q. When did this conversation occur?

A. About a week or two ago down in the doorway of the—I forget the name of the hotel here, the place you all live in.

Q. Chamberlain?

A. Chamberlain, yes.

Q. A week or two ago, what time of the day was it?

A. It was in the night.

Q. What time of evening?

A. I don't know.

Q. Did you ever have more than one conversation with him about the matter?

A. I think two, City Solicitor Brennan introduced me to Mr. King first and I think I met him afterwards.

Q. You had two conversations with him then about the cost of excavation?

A. Yes, sir.

Q. Now how deep is a telephone conduit trench?

A. I didn't ask him.

Q. Well don't you know?

2589 A. No.

Q. Don't you know that they simply put these conduits under the pavement, go down low enough to get under the pavement and stop?

A. I don't know how deep they run down I never inquired that sort of thing. I have seen a great many of them, had a lot to do with them.

Q. But you don't know how deep they would run?

A. I don't know how deep they would run, I didn't even ask how many ducts they had in the thing, I know they go down there so they dig a shallow ditch, the 40 cents would make a deeper ditch somewhat cheaper so I didn't worry about it at all. I have been at this work for years.

Q. Yes I observe in Durham, Fostoria and St. Louis.

A. In addition to that had a part in underlaying the whole of Philadelphia, the business part of the town.

Q. How many miles of conduit did you lay there in Philadelphia?

A. I have never figured it out but a great many miles.

Q. Well two or three hundred or five or six?

A. Well that would be the way you put it. I would have to look that up too.

Q. Don't remember it?

A. Oh no.

Q. You say it was as much as ten miles?

A. I would say a good many ten miles.

Q. How deep is your trench for your gas pipe?

A. It is all laid out for you on the blue print.

Q. Can't you tell us what the cover is?

A. Well now three feet eight inches deep in the case of two inch pipe, three feet nine inches deep in the case of cast iron
2590 three inch pipe, three feet ten inches deep in the case of four inch cast iron pipe, four feet deep in the case of six inch cast iron pipe and so on going deeper as the size of the pipe grows larger.

Q. Can't you tell us what the cover is, give us a general statement by how much it is covered above, the cover.

A. What do you mean by the cover?

Q. The distance from the top of the pipe to the ground?

A. Well about three feet and a half it would be about right that way.

Q. Now then it is your idea that this shallow trench could be excavated more economically than a deeper trench?

A. Oh yes.

Q. I suppose the deeper you go the less it costs?

A. Within certain limits of three or four feet you know. It is practically straight work after you get down where you can handle your shovels and spades pretty easily.

Q. Now I want to go back to this chart again, that is something I think very interesting. Are these prices of cast iron pipes shown on this chart the prices you took for Des Moines?

A. They are.

Q. And do they include the pipe delivered where?

A. In Des Moines.

Q. F. o. b. cars in Des Moines, is that right?

A. Delivered 'longside the railway platform or whatever you chance to call it on the cars.

Q. Are you sure that you took these prices on the pipe?

A. I had this chart and this chart is the basis of them.

Q. I want to get what some of these things cover, you have here cost per foot for tools, etc., one line here what does the and
2591 so forth mean?

A. That includes shovels and things that they take home at night and think you are not looking.

Q. Well does it include anything except tools?

A. No.

Q. Are you sure about it?

A. I don't think so, I am not certain.

Q. Can you refer to the figures there and find out whether it does or does not?

A. No, I can't go any farther than that, too far back to recall what

the rest is, it is a very small matter. Call it all tools and leave it and so forth.

Q. Now miscellaneous per foot, what does that cover?

A. It covered practical actual expenditures brought out in the investigation of the records of pipe laying of all sorts and kinds which it is better to throw in that way than to attempt to itemize it and we did so.

Q. Could not be classified?

A. They could be classified.

Q. Give us something that illustrates what it included?

A. If I remember rightly that had something to do with street permits, in part something else. There are a great many expenditures of that sort for inspectors and street permits that you may not have to expend in a place like Des Moines, but they certainly would have to expend in a larger eastern city.

Q. Now then lead, cement, etc., for joints, the next curve covers the material used in the joints.

A. Yes, sir.

Q. Cover anything else?

A. No unless it says so.

2592 Q. Well it says lead, cement, etc., for joints and what is this, and so forth?

A. When you want to make a joint you have to put in open and then you make a clay roll and bring it around the pipe and make a gate at the top to pour the lead in, these are all little things, but they take trouble and time to get.

Q. This curve covers material of that sort?

A. Of that kind, yes.

Q. The next giver per foot for special castings, that explains itself I suppose?

A. Yes, sir.

Q. The next line is cost per thousand for carting pipe?

A. Yes, that is it. You will observe that when you get to 48 inch pipe the cost per foot for cartage becomes something terrible.

Q. Well that depends on whether you are interested on side of it or the other. The next line is cost per foot for excavating filling city proper at 40 cents per cubic yard. Now that is excavation I suppose?

A. Excavation and filling, yes.

Q. Then you have some paving costs which follow I believe?

A. Down below concrete paving.

Q. I don't care to go into those at present. Now do the items that I called attention to include all of the items of cost which you have taken into account in unpaved streets?

A. The cost per foot for pipe laid without pavement includes the following items. Straight pipe, special castings, lead, cement and so forth for joints, carting pipe, tools, etc., miscellaneous per foot, excavation and filling in the city proper, making a total given by the curve cost per foot for pipe laid without paving. I

2593 should say in addition to that that when I mentioned carefully the city proper in this that I did not intend to include expenses pavements, but I did intend to include difficulties with

sewers, difficulties with street railways, difficulties with steam railways, difficulties with occasional crossings, difficulties with occasional macadam in a small way, just enough to keep them out of the mud, an occasional valve and all of the various practical things that it would be difficult to foresee in an estimate, in fact you would not foresee it in an ordinary estimate.

Q. Did the items which you have enumerated include all of the items which go to the cost of a pipe in the ground?

A. Well yes, as far as human fallibility would permit me to give it.

Q. Now then your cost of pipe here is the pipe on the cars, which item do you include cost of unloading it and storing it, your store house expenses?

A. You don't put cast iron pipe in a store house, you lay it out in the yard.

Q. Now which item will include cost unloading it and piling it out in the yard?

A. In the carting, sufficient to cover it and the miscellaneous some charges to that.

Q. And which one do you include it in?

A. Well I think I would rather let it go in the miscellaneous with a little on the carting.

Q. You didn't split that up in making this chart did you and include part of it under one head and part of it under another?

A. You must remember one thing, I began my report by stating clearly no man can be absolutely accurate in his work.

2594 Q. You didn't split up this item of expense of unloading and piling up in the yard and put part of it into miscellaneous, part of it into tools and part into cartage and that sort of thing did you?

A. No, but I just left it in the miscellaneous, where it happened to occur. Didn't always occur, sometimes hauled straight to the ditch.

Q. You left it in the miscellaneous?

A. If it happened that way.

Q. When you made this chart up you took and analyzed some figures and separated them?

A. Yes, sir.

Q. So as to get these separate items of cost didn't you?

A. Yes, all of these were not important you know.

Q. Did that just happen to be sometimes one kind of an expense and sometimes be another kind of an expense?

A. In the miscellaneous.

Q. This expense occurred in unloading and piling up your pipe in the yard?

A. I should — perfectly willing to have you put it in miscellaneous and let it go at that.

Q. Now take the chart and take six inch pipe how much would the miscellaneous amount to? Can you read it from the chart or is it necessary to refer to the figures?

A. About three cents a foot miscellaneous seems to go here on six inch pipe.

Q. And that weighs how much a foot?

A. About 500 pounds a foot in this case I think. Wait a minute, maybe I have got that wrong. About 350 pounds per foot. That would be a little less than a cent for a hundree pounds. 2595 Weight per foot is 29.2, it is per length I gave that 350 pounds.

Q. Going back further in which one of these things do you put the labor of pipe laying, I don't find it anywhere in your cost of laying pipe?

A. Lead, cement labor, etc., in joints you will find that in.

Q. But I don't see any lead, cement, and labor on joints?

A. No, labor should have been put in there.

Q. You told us a few moments ago that curve simply covered material used in making joints and nothing else?

A. Just simply a misleading question on your part which I being rather tired answered without looking at very carefully.

Q. Do you mean the question which was asked you whether that curve included anything except the curve was misleading?

A. It mislead me.

Q. You are satisfied that this labor is in that curve?

A. That is where it is, yes, on your calling my attention to it.

Q. I didn't call your attention to the fact that it was in that curve, I didn't know where it was, I thought it was funny you didn't have any here. You are sure now it was in that curve and is there?

A. It is there.

Here the further hearing was adjourned until 9:30 A. M. Monday, August 21, 1911.

2596 SATURDAY, August 19, 1911.

At this time, 9:30 A. M. of this day, an adjournment was taken until Monday, August 21, 9:30 A. M.

Monday Forenoon Session.

AUGUST 21, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

WILLIAM D. MARKS, continuing his cross examination, examined by Mr. Guernsey, testified:

Q. Professor Marks, I find on page 2574 of your cross examination, referring to Exhibit 41, the blueprint chart, this: "Those figures represent then the actual cost in Buffalo without any overhead added whatever?" Answer: "They are actual cost in Buffalo done in small ditches without any overhead added." And then with reference to the same matter on page 2585: "Now then this chart, Exhibit 41, does show the actual results of the city of Buffalo over a period of years on laying water pipes in that city?" Answer: "It does not." I want to ask you again whether the figures which are shown on this Exhibit 41 of the cost of pipe in the ground are based or are the actual results in the city of Buffalo or not?

A. Results in what, gas or water pipe?

Q. Either.

A. They are intended to represent the actual results occurring in Buffalo with a ten per cent added for undistributed charges and fifteen per cent contractor's profit if the contract is made in a large way or if the work is done in an interrupted way the loss or the additional charge due to the trouble with holding labor and
2597 with starting and stopping work in small quantities.

Q. I don't think you understand my question. You do not claim that these figures shown on Exhibit 41 are made up from the actual results of laying gas pipe in Buffalo as shown by the books of the Gas Company, do you?

A. I do not.

Q. Now, then you do claim, do you not, that they are made up from the actual results of laying the water pipe in the city of Buffalo as shown by the books of the city?

A. By the accounts of the city.

Q. What is your distinction between books and accounts?

A. The city is more apt to let large contracts for water pipe than the gas company is to do large amounts of gas piping. The consequence was, as I remember, that some of the memoranda which are furnished us from the city involved quite a considerable amount of water pipe laid for certain sums of money or certain rates. It was not always the charge for the labor of the city—independently bossed by the city. It was four or five years ago since I went into the matter and of course it is difficult to recall the exact details.

Q. But what I asked you was as to the distinction which you made between books and accounts; it all appears on the books of the city if it is the city's business?

A. I can't say; we had access to the books of the city; we had access to the accounts of the cost of laying water mains.

Q. On what did these accounts appear?

A. Sometimes on forms of contracts for a certain price, sometimes in *in* transcript, which transcript I simply accepted as being the same as the books.

Q. Well, then, who furnished you this information?

2598 A. The gentleman who was then director of public works.

He was—the most that I recall about him is that he was a very obliging and very energetic gentleman—I cannot recall his name.

Q. Don't you remember that he was a man thoroughly competent and of very sound judgment?

A. I was so told.

Q. I inferred that had been omitted. In what shape did he furnish you this information?

A. I just related that to you as nearly as I can.

Q. That is, partly from contracts, partly what you call transcripts—what do you mean by that?

A. Pay rolls, cost of the amount of ditching done, localities and streets, all of the engineering memoranda that we wanted to get,

as well as the ultimate facts and figures as near as he could furnish them to us.

Q. And you yourself did not verify it with the books or records, whatever character they were, of the city of Buffalo?

A. I did not.

Q. Now do you know what period this memoranda covered?

A. A period of five years back from 1907 was my instruction to those who were looking up these matters for me.

Q. From January 1, 1907, or December 31, 1907—was the year 1907 included or not?

A. I think the year 1907 was not included, because it was during the year 1907 that this matter of gas came up.

Q. I was going to suggest, I see this was copyrighted March, 1907, so that the inference would be that the year 1907 was not included.

A. No.

Q. Now, would the contracts for laying of pipe in large quantities show the items making up the aggregate per foot; that is, would they show how much was on account of grading, how much on account of miscellaneous, how much on account of lead, cement, etc.?

A. You are going into details that I can not recollect for a period of four or five years.

Q. What I was going to get at was how you could get these items here from the contract; wouldn't it be very unusual to put these items into the contract?

A. Why, of course the men made their bids.

Q. And they based their bids on either so much a foot or mile, or something like that, wouldn't they?

A. They based their bids, if I remember rightly, in most cases on so much a foot—even that I cannot accurately remember.

Q. So assuming that this did not come from the contract, can you tell us where you did obtain those details that appear here on Exhibit 41?

A. There were also a number of memoranda of work done by the City's own employes at times.

Q. Is that where they originated?

A. In part at least. You must recollect one thing: that in each and every one of these quantities I trusted to no one else's judgment, obtaining such data as I could obtain, examining it carefully, I was the one to give the final decision; that is a matter I carry out in every appraisement I make, no matter how many assistants I have.

Q. Does this show then the results in Buffalo or does it show something else?

A. It shows the results in Buffalo with a liberal margin in favor of the company.

Q. Then it does not show the results in Buffalo, this chart, Exhibit 41?

2600 A. It does as near as one can show it. You must recollect I begin by saying in my report that anybody is insincere

who pretends any extreme accuracy on a large number of decimals for an appraisement.

Q. What I want to get at is whether this is an estimate or whether this is the result of analyzing and tabulating the figures which were shown by the actual work in Buffalo?

A. They are the result of analyzing and tabulating the figures shown by the work in Buffalo with the utmost care.

Q. Then it is based upon the actual figures in Buffalo?

A. I did not say so. I said taking those quantities, the results of that analysis, I used figures which were always outside, largely more in favor of the Gas Company, if I had any doubt in my mind in the fixing of the scale of prices for Buffalo.

Q. Then is this right; did you first analyze the Buffalo figures and ascertain the actual cost from the figures given there, assuming them to be correct, of laying water mains in the city of Buffalo for five years prior to 1907?

A. You are assuming a question of analysis of the water main business—I see what you are trying to get at.

Q. I am trying to find out how those were made up?

A. You are assuming I first calculated the water mains, and having calculated all that, then went back down the hill again and calculated it up on the gas main business. I used the water main business particularly if I remember rightly in the matter of excavation, to get that as accurately and as closely as I could. If I remember rightly I used it too in the matter of materials, getting that as accurately as I could. Now, mind you, I am talking just what a man can recall about it some four years after the thing occurred, please. You asked me a day or so ago about another matter, about where the calking came in; that labor that comes in the miscellaneous; I tried to think that matter up; that miscellaneous labor too was gotten from the water mains record. Then the weights of the pipes used, the gas mains were gotten from the Buffalo gas mains. I think that is about all I can tell you about it.

Q. We will go back to the question for a moment; what you call calking, I called it pipe laying; you told me then it was in the lead, cement, etc.

A. I thought it was at first; after looking it over I concluded it was in the miscellaneous.

Q. Now, to get back, did you ascertain the actual cost of the matters contained in Exhibit 41 from the records of the city of Buffalo for the five years preceding 1907, and did you then add to that ten per cent for undistributed expense and then an additional fifteen per cent, and does that give you the result shown in this exhibit 41?

A. In the case of some contracts I did so, being large and street work; you will note I put something in there, and I wonder since why I put it in; that was the contractor's profit, fifteen per cent.

The MASTER: You explained that before.

Q. Then this Exhibit 41 is not predicated upon actual results in the city of Buffalo, plus the percentages I have stated?

A. As near as I can get at it, it is.

Q. Then I will put the question the other way. The results shown here on Exhibit 41 are the actual results shown for the five years in question for water mains in the city of Buffalo, plus ten and fifteen per cent to which reference has been made?

A. Not at all. I told you distinctly that I did not compute 2602 the water mains.

Q. Did you have any data from the books of the city of Buffalo as to the cost of laying gas mains?

A. No. The books of the Buffalo Gas Company were inaccessible.

Q. I asked you about the books of the city of Buffalo?

A. I don't recall they did anything but gas main laying in the city.

Q. Let me ask you this question over again. I will put it in another way. Does Exhibit 41 contain an addition of ten per cent and a further addition of fifteen per cent to the cost of labor and material, as you ascertained them in some way in Buffalo?

A. In large quantities it contains an addition of fifteen per cent contractor's profit, where large contracts are made, and I left it that way because I knew from practical experience that — it was done in short lengths, it would cost that much more.

The MASTER: Doesn't it contain ten per cent too?

A. The contingent ten per cent, but the ten per cent applies equally to the large contract and the small work on the contract, and the fifteen per cent was assumed contractor's profit, or adduced, whatever phrase we may adopt. That made a difference between large contracts' costs and small and interrupted work.

Q. Was this 26½ per cent computed on the cost of the pipe as well as upon the other things?

A. It was computed on the cost of everything.

Q. That includes the cost of the pipe?

A. The cast iron pipe you are referring to.

Q. It includes the cast iron pipe?

A. The cast iron pipe.

Q. Do those prices shown here include 26½ per cent or not?

A. You will see it is two thousand pounds laid down in Buffalo.

Q. So that those prices shown on Exhibit 41 do not include that 26½ per cent?

2603 A. That is the actual cash cost, real money paid by the Gas Company to the pipe people.

Q. And that 26½ per cent was added thereafter?

A. Thereafter.

Q. To the cost of the cast iron pipe?

A. And the ditching and all the other things that go into these unit prices.

Q. That go into these unit prices?

A. Not all of them; the straight pipe, without extras, bends and curves and all that sort of thing. I will make that a little clearer. The last time I was here I told you I took the straight pipe and of course straight ditching, and with this ten per cent and the con-

tractor's profit was supposed to cover irregularities difficulties and that sort of thing, making a total of $26\frac{1}{2}$ per cent.

The MASTER: If I understand you correctly this chart shows simply the actual cost without the percentage added?

A. You mean ten and twenty-five per cent and fifteen per cent?

The MASTER: Yes.

A. That chart shows ten per cent and fifteen per cent added.

The MASTER:

Q. I had understood you both ways; I wanted to know which was correct.

A. I could explain it all to you in fifty words.

The MASTER: That is all

Q. Let us have the fifty words.

A. That blue print shows the result of the Buffalo computations, inclusive of ten per cent undistributed charges and fifteen per cent contractor's profit, on the assumption that the pipe is all laid we will say, in one large contract, we will say 180 miles of 2604 pipe a year. The man that gets that contract would make fifteen per cent on that at those prices. If, however, the company does, as it generally does, lays a little piping at the start and then runs a block in one street and stops there, and then picks up the work at the other end and runs two blocks on another street, and then sends its gang of men off somewhere else and runs three blocks, and changing back run another block, you will find that by the end of the year the men are wasting a lot of time getting ready for work and getting the stuff on the work, they waste time in between their jobs, and in addition to that the men themselves know perfectly well when the work is being rushed under a systematic drive that they are expected to do a little better than where they are allowed, as they are with the Gas Company, to go from small job to small job.

The MASTER: Have you added ten per cent on that account?

A. Ten per cent goes into the contract, for the large contract, and also goes into the small job. Fifteen per cent goes into the large contract for profit for the man who lays the pipe; fifteen per cent goes into the small jobs to cover interferences and delays and annoyances, and puttering around and doing a whole lot of little jobs instead of one big job.

Q. What I cannot understand is this, Professor, if this is made up from actual figures, it seems to me that you must either have taken those figures as they were, or taken those figures and added those percentages; can you explain this and make that clear to us as to whether it was made up from actual figures and if it is, did you take them as they were or did you add something to them?

A. I will say, in getting at the quantities in Buffalo a discrepancy at once appeared, one no theory would have predicted, and 2605 that was the fact that the same number of small jobs giving a given length, the sum of the cost was always greater than one straight job of the same length. In other words, a contractor would lay a thousand feet of main, we will say, for in the neighbor-

hood of fifteen per cent less cost than the company's men would lay the same thousand feet in lengths of one hundred feet or two hundred feet or three hundred feet and so on. I don't know that I can possibly go any further. I have not a sufficient command of the English language if I am not clear now. I never will be able to be clear as to what I wish to convey.

Q. Can you tell us whether this is made up of actual figures or not?

A. I have told you repeatedly that it is.

Q. Did you take the actual costs in Buffalo during the period referred to, and add to that ten per cent and fifteen per cent on both labor and material and then tabulate them for the purpose of getting the result shown in this Exhibit 41?

A. I have endeavored to explain that repeatedly to you. If I have not made myself clear to you, I will simply have to say that I have no further command of the English language to make it clear.

Q. Can you answer that question by yes or not?

A. No, I can't and won't.

Q. Then you cannot say that you did take the actual results in the city of Buffalo during the period referred to and add to them this ten per cent and fifteen per cent and then tabulate it to get the results shown on this chart?

A. I have repeatedly endeavored to explain to you exactly how I did it.

Q. Would it be correct to answer the question I just asked you in the affirmative without qualification?

2606 A. In technical questions it is impossible to undertake the methods of a police court and answer yes or not; sometimes explanation is necessary, particularly if the witness is trying to make clear the truth of the matter.

Mr. GUERNSEY: I don't know whether that is intended as a criticism of the court or counsel.

The WITNESS: It is intended as a criticism of counsel.

Mr. BYERS: We all agree to that.

The MASTER: Did you get the costs from the contracts under which the mains were laid in the city of Buffalo, where there were contracts?

A. I did.

The MASTER: And then fifteen per cent would be included in that contract?

A. Yes.

The MASTER: In that case you took the contract price?

A. Yes.

The MASTER: Then when you come to the small jobs put up by the city it is?

A. Not by the city itself so much—yes it is the city itself, but I would want to say irregular jobs. You see, whenever you get at a thing practically and try to get at the honest facts about the matter, you are very apt to bump up against two things you can't reconcile and in this case, I could not reconcile after a very laborious com-

putation covering weeks of time, I could not reconcile the difference in prices for irregular and small jobs, and the large contracts. The question at once occurred, if it costs as much as this per foot to lay down certain size pipe and a contractor comes along and bids on it at the same price, where is the profit for the contractor. He 2607 is not working for his health you see; he is in business for money.

The MASTER: The fact is, you took the actual cost the city incurred in laying the pipe per foot?

A. Yes.

The MASTER: Did you add ten per cent to this?

A. In both cases, the ten per cent always came in.

The MASTER: You didn't add fifteen per cent on account of contractor's profit because that would be included in the contractor's price?

A. Yes.

The MASTER: But you found ten per cent in the small work?

A. Yes. That is exactly it; you stated it in another way, in a way I am very much obliged to you for stating it.

Q. Now taking your three inch pipe, what is your cost for tools?

A. You mean mains?

Q. You have certain unit costs for your three inch pipe which is 36 cents, I believe. How much does that include on account of your item of tools per foot?

A. I should judge about one cent.

Q. Can you give it to us accurately?

A. No, not nearer than that; I wouldn't get it nearer than that; I never pretend to decimal accuracy.

Q. Now, how much is miscellaneous, about?

A. One cent.

Q. Joints, lead, cement, etc.?

A. About one cent.

Q. And specials?

A. About one and one half cent.

Q. Carting?

A. That is about a cent.

2608 Q. Excavation and back filling?

A. That jumps up to about eleven cents.

Q. Now take four inch pipe, tools, how much?

A. About a cent.

Q. Your typewritten memorandum shows one and one half cent?

A. I don't know; I had so many books to carry, I didn't get that in.

Q. Refer to this copy, a part of the Buffalo Exhibit?

A. Yes, one and one half cents.

Q. This typewritten memorandum is more accurate than scaling the plat, isn't it?

A. Yes. If that is correctly typewritten it would save a good deal of time if you will accept it.

Q. I will accept it if you will?

A. Barring typographical errors.

Q. This is the memorandum you referred to Friday which is marked "Respondents' Exhibit G" in Buffalo?

A. That is intended to be correct; I think it is too.

Q. Referring to this typewritten memorandum, will you read the prices per ton in Buffalo of 2,000 pounds of the various sizes of pipe as I will give them, commencing with three inch cast iron?

A. \$30.80.

Q. Four inch?

A. \$28.80.

Q. Six inch?

A. \$27.80.

Q. Eight inch?

A. \$27.80.

Q. Ten inch?

A. \$27.80.

Q. Twelve inch?

A. \$27.30.

2609 Q. Sixteen inch?

A. \$27.30.

Q. Twenty inch?

A. \$26.80.

Q. Twenty-four inch?

A. \$26.80.

Q. Those check with the same amounts on Exhibit 41?

A. Yes.

Q. Now the weight per length in pounds—they are the same in this Respondents' Exhibit G, typewritten memorandum, that they are in Exhibit 41?

A. Yes.

Q. The same way the weight per foot given in this typewritten memorandum checks with the weight per foot in Exhibit 41?

A. Yes.

Q. Now then taking the width of trench, that checks in Exhibit 41 with the typewritten memorandum?

A. It does check.

Q. And the depth of the trench given in Exhibit 41 also checks with the depth of the trench in this memorandum, does it not?

A. It checks.

Q. The cubic yards in trench per foot as given by Exhibit 41 also checks with the typewritten memorandum?

A. It does.

Q. Now, then, referring to the various items, will you give me the cost of the special casting as I read them, first take three inch pipe?

A. One and one half cents.

Q. Four inch?

A. Two and one half cents.

2610 Q. Six inch?

A. Three and one half cents.

Q. Eight inch?

A. Five cents.

Q. Ten inch?

- A. Six and a half cents.
Q. Twelve inch?
A. Eight cents.
Q. Fourteen inch?
A. Not given.
Q. Sixteen inch?
A. Ten and one half cents.
Q. Twenty inch?
A. Twelve cents.
Q. Twenty-four inch?
A. Fifteen cents.
Q. Thirty inch?
A. Eighteen cents.
Q. Now will you give me the cost of lead and cement, etc., for three inch pipe?
A. One cent.
Q. Four inch?
A. Two cents.
Q. Six inch?
A. Three cents.
Q. Eight inch?
A. Four cents.
Q. Ten inch?
A. Five cents.
Q. Twelve inch?
2611 A. Six cents.
Q. Sixteen inch?
A. Nine cents.
Q. Twenty inch?
A. Twelve cents.
Q. Twenty-four inch?
A. Fourteen cents.
Q. Thirty inch?
A. Eighteen cents.
Q. Will you now give me the cost for carting for three inch pipe.
A. One cent.
Q. Four inch?
A. One cent.
Q. Six inch?
A. One and one half cent.
Q. Eigght inch?
A. Two and one half cents.
Q. Ten inch?
A. Three and one half cents.
Q. Twelve inch?
A. Four cents.
Q. Sixteen inch?
A. Six cents.
Q. Twenty inch?
A. Eight cents.
Q. Twenty-four inch?

A. Ten cents.

Q. Thirty inch?

A. Fifteen cents.

Q. Will you give me the cost of tools, etc., for the same
2612 sizes, beginnign with three inch?

A. One cent.

Q. Four inch?

A. One and one half cent.

Q. Six inch?

A. Two cents.

Q. Eight inch?

A. Two and a half cents.

Q. Ten inch?

A. Three cents.

Q. Twelve inch?

A. Three and a half cents.

Q. Sixteen inch?

A. Four and a half cents.

Q. Twenty inch?

A. Five and a half cents.

Q. Twenty-four inch?

A. Six and a half cents.

Q. Now miscellaneous, what is it for three inch?

A. One cent.

Q. Four inch?

A. Two cents.

Q. Six inch?

A. Three cents.

Q. Eight inch?

A. Three cents.

Q. Ten inch?

A. Four cents.

Q. Twelve inch?

A. Five cents.

2613 Q. Sixteen inch?

A. Seven cents.

Q. Twenty inch?

A. Eight cents.

Q. Twenty-four inch?

A. Ten cents.

Q. Thirty inches?

A. Thirteen cents.

Q. Does that cover the items aside from the excavation?

A. The total cost per foot consists of the cost of columns 5, 6, 7,
8, 9, 10 and 13.

Q. We have taken 6, 7, 8, 9, 10, haven't we?

A. Yes.

Q. Now 13, take the three inch pipe, what is the cost for installation?

A. Eleven cents.

Q. Four inch?

A. Twelve cents.

Q. Six inch?

A. Sixteen cents.

Q. Eight inch?

A. Eighteen cents.

Q. Ten inch?

A. Nineteen cents.

Q. Twelve inch?

A. Twenty-three cents.

Q. Sixteen inch?

A. Twenty-six cents.

Q. Twenty inch?

A. Thirty cents.

2614 Q. Twenty four inch?

A. Thirty-two cents.

Q. Thirty inch?

A. Forty cents.

Q. Now, take this twenty-four inch pipe, because it is an easy one to figure, that runs 200 pounds to the foot—I am giving you that correctly, am I not?

A. Yes, I remember that.

Q. Now, what would the pipe cost for a foot there without any profit added?

A. You mean on the railroad track?

Q. Yes, on the track at Buffalo; it is \$26.80 a ton, and \$2 is one-tenth of that or \$.268?

A. I presume; I haven't any copy here of the blue print.

Q. I am making this an independent computation anyway. Will you add to that 26½ per cent, to the \$.268?

A. If I have made the computation correctly, it is \$3.39.

Q. \$3.39?

A. Yes.

Q. Now, what did you estimate the cost of this pipe per foot, laid and all in Des Moines?

A. \$3.60.

Q. Now, will you deduct from the \$3.60 the cost of the pipe on the cars at Buffalo, plus those percentages and tell us what you have left?

A. You mean deduct from \$3.60, \$3.39?

Q. Yes, sir.

A. Twenty-one cents.

2615 Q. Now, Professor, the cost of the tools, miscellaneous, lead, cement, special castings, carting and excavation for that size pipe per foot amount to 88 cents; where did you get the other 69 cents?

A. You made a mistake there; that \$3.60 includes all those costs you just mentioned.

Q. I understand it does in your computation, you gave us a moment ago for tools; will you take those figures for 24 inch pipe, tools, etc., per foot, six and a half cents?

A. Yes.

Q. Miscellaneous per foot, ten cents.

A. Yes.

Q. Lead, cement, etc., fourteen cents?

A. Yes.

Q. Special casting fifteen and a half cents?

A. Yes.

Q. Carting pipe, etc., ten cents?

A. Yes.

Q. Excavating and back filling thirty-two cents?

A. Yes.

Q. Will you please foot those?

A. I want to go at that pretty slowly.

Q. I have no objection to your going at it slowly—will you foot those items for us, Professor?

A. Just a moment; I get those as follows—

Q. Pay attention to the question I asked you, to foot the various items I gave you and give me the total of the items?

A. You would be misleading—

Q. Wee will get to that later. I want to know the total of these items first?

A. You asked me to foot 6½, 10, 14, 15½, 10 and 32.

Q. Yes.

A. That makes 88 cents.

2616 Q. When you deduct your \$3.39 which was the cost of the pipe, plus 26½ per cent from the \$3.60 which you allowed here as your total cost of this pipe in the ground, you get 21 cents to cover these items that amount to 88 cents?

A. You would the way you do it; that is an error; I want to explain that.

Q. Let us do it another way—

Mr. BYERS: I think the witness ought to be allowed to explain.

Q. Will you take your \$3.39 which is the cost of the pipe, plus 26½ per cent and add to it the cost of these other items for pipe of that size and tell us what the total is? The cost of the two miscellaneous, lead, cement, special casting, carting pipe and excavation and back filling which amounts to 88 cents?

A. You want me to add 88 cents to \$3.39?

Q. Yes.

A. The two added together will give you \$4.27.

Q. And that is the aggregate of the items taken from this Exhibit 41 and adding your 26½ per cent to one foot of pipe of this size, is it not?

A. As a computation it is; but it is not a fact; I am ready to give you the figures any moment.

Q. Now will you take the next smaller size, 20 inch pipe, and tell us what one foot of that pipe would cost according to your figures, plus 26½ per cent?

A. Do you wish me to act as your computer or tell the facts in this case?

Q. I would like to have you answer the question?

A. You wish me to add 26½ per cent to what?

Q. The 20 inch pipe is 4.2 pounds. For convenience, if you prefer, I will take that cost per foot from this Exhibit G; it will
2617 save us a little compitation; that is given here 2.067 per foot in the typewritten memorandum?

A. 20 inch pipe?

Q. 20 inch pipe, yes. Will you add 26½ per cent to that?

A. That makes \$2.61.

Q. Now, then, will you give me the total of the items in addition to straight pipe that as shown by Exhibit 41 go into pipe this size; they are 5½ cents for tools; 8 cents for miscellaneous; 12 cents for lead, cement, etc. per joint; 12½ special castings; 8 cents for cartage; 30 cents for excavation and back filling. The total as I have it is 76 cents?

A. 76 cents.

Q. Add that if you please to the cost of the pipe, plus 26½ per cent and that gives us what?

A. \$3.37.

Q. And at what price have you computed this pipe in your estimate on page 57 of your report?

A. At the correct figures which are \$2.83.

Q. \$2.90?

A. I know I gave you the big end of it.

Q. I asked you what figures you computed this at in your report?

A. \$2.83. I presume I gave you \$2.90.

Q. Now, let us get the next one.

A. If you will allow me to state one fact, you will save a great deal of labor.

Q. All right, what is that one fact?

A. The City bought the pipe and delivered it to the contractor and paid for it and therefore the 26½ per cent don't come in on that at all.

Q. Well, you said, did you not, on Friday and today that
2618 these figures which you used here were used and allowed a profit of 26½ per cent on the pipe?

A. I don't know what profit R. D. Wood & Company made on the pipe, but the city bought the pipe, paid for it, and delivered it to the contractor, and the ten per cent and fifteen per cent comes in on what the contractor does after he gets the pipe on board cars; so you see these figures are entirely correct and with the actual facts.

Q. I don't see it yet. Well, then, tell us whether these prices of pipe shown here on Exhibit 41 are the prices of pipe f. o. b. cars at Buffalo, or whether they include 26½ per cent?

A. The exact statement is right here on the blue print, the cost per two thousand pounds in Buffalo, and the city paid for them and the contractor took them off the cars and hauled them.

Q. Does your estimate then include any 26½ per cent of the cost of the pipe?

A. It does not.

Q. You told us Friday and this morning that it did?

A. Possibly I may have done so. If I have done so it was of a statement which was an old thing, three or four years back; I might have overlooked it; in fact I didn't have the pipe in mind when you brought it up.

Q. When I asked you about the pipe?

A. As to the contractor paying for it, I mean?

Q. Now, you say in your report at page 53, when you come to the distribution system, referring to street mains and services but not attached meters system of overhead charges heretofore used at 12½ cents is changed to an addition of ten cents undistributed expense and fifteen per cent as contractors' profit, making a total of 26½ per cent added to the cost of raw material and productive labor, is that true?

A. I should have stated raw material purchased by the contractor.

Q. Did you add that 26½ per cent to the pipe?

A. No, I did not; I just told you so. I took the pipe in consonance with the actual fact that the city bought it, paid for it, delivering it on the siding, board of cars, to the contractor.

Q. On page 2569 of the record in this case a part of your cross examination you stated this: Question. "Now I want to turn to section 75, page 53, you say that in the distribution system, that is, straight mains and services you have not used your 12½ per cent overhead, but have added 26½ per cent because of raw material and productive labor"? Answer: "Yes, sir." "Q. By that you mean the cost of pipes, fittings and valves and the material you use for making joints, drip pots and all the other material that goes into a completed main, is that right? A. That was the fact of the matter. Q. That is what you mean by your raw material. A. Yes, sir." Did you so testify on your cross examination in this case?

A. If I did I made an oversight which I wish to correct at once by stating that the fact of the case is the mains in Buffalo were delivered and paid for by the city on the siding.

Q. Then you did not add anything in the way of a percentage to cover overhead on the cost of mains?

A. So far as the contractor was concerned I did so, and that explains why I used the phrase contractors' profit. You brought it out very clearly by your cross examination.

Q. Is that 26½ per cent in your price of \$28.80 for four inch mains, that is the price given on Exhibit 41?

A. No; I didn't know what Wood made on it.

Q. That is the profit of the pipe seller, the manufacturer?

2620 A. Yes.

Q. We weren't talking about his profit at all?

A. No.

Q. We weren't considering his profit?

A. You just asked me if he made 26½ per cent.

Q. No, I did not.

A. I so understood you.

Q. I am talking about the profit the contractor makes who lays the mains, not about the profit of the pipe manufacturer. Now

then I want to know whether these prices \$28.80 per ton for four inch pipe includes the profit which the contractor who laid the mains made on the money that he paid out for the pipe?

A. He never paid a cent for pipe. The city paid for the pipe. He had no money in cast iron pipe; it lays on the flat car on the siding; the city would not allow him to make a profit on the money they paid out.

Q. Then as a matter of fact there is no where any overhead figure on the cost of cast iron pipe in your estimate here, is that right?

A. You mean to say that this ten per cent and fifteen per cent don't come in on the cost of cast iron pipe on the siding?

Q. I want to find out whether you get it in on the cost of cast iron pipe in the job on the streets?

A. No, I did not; I called your attention to that——

Q. So it is not in anywhere on the cost of the cast iron pipe?

A. I won't say that, but it certainly is not in those figures here.

Q. And it is not in the figures shown in Exhibit 41, is it?

A. You mean the blue print?

Q. Yes.

A. It is not in there either.

2621 Q. On just what did you compute this then, the 26½ per cent; let us see if we can get it right, or do you know?

A. To begin with, I did not add this 26½ per cent on the bare cast iron pipe as delivered on the siding. In the case of interrupted work, the results of such figures as I could get at was included in it, all except the ten per cent. By interrupted work I mean the piece-meal work done by the company, the odd jobs. In the case of the contractor where I got hold of his figures, in some cases. I could in round figures — the cost. I followed the matter up to the contractor, if he expected to and claimed and did get fifteen per cent profit on the contracts which he had taken from the city.

Q. As to the figures in Des Moines, take this \$3.60 for 24 inch pipe, you have said you did not include any additional 26½ per cent in the cost of cast iron pipe, that is right, isn't it?

A. Yes.

Q. Now on what did you include the 26½ per cent in that figure of \$3.60?

A. You have got that wrong end to. I took the actual figures obtained from the company's books for interrupted work, and also learned as far as I could, as I told you before, the contractor's price which happened to agree very closely, not exactly. I wish to be very distinct on that point; I do not claim entire accuracy in anything I have to say in the way of the appraisement, but near enough for all practical purposes and then investigating the matter further found the contractor claimed and did make about fifteen per cent, on what they did themselves, which was to haul the pipe, to dig the ditch, fill it in again, to lay the pipe, to put in the joints for the pipe, to handle the ugly corners and places where special
2622 castings came in to handle and put in the valves, and there were very few of them in Buffalo, but I took them in along

with the rest, because there were few, and not of much consequence, in comparison with the aggregate.

The MASTER: You have gone over that three or four times; answer his question; was it included at all in your calculation there on page 57, except as it is included in the Buffalo figures?

A. On page 57 are the Buffalo figures and therefore all there is included is as it was in the Buffalo figures.

The MASTER: Then you did not add the 26½ per cent at all to the Buffalo figures; I mean by the figures, as you got them there?

A. Your honor, I am sorry I seem to be stupid about this thing.

The MASTER: Here is what I want to know; you did not add anything to these Buffalo figures?

A. Not a thing.

Q. These figures just referred to are the figures the unit prices are shown on page 57 of your report?

A. Yes.

Q. You say on page 54 of your report: "Recent quotations from the Iron Age of \$30 a ton for cast iron pipe confirm these basic prices which are obtained for a period of five years anterior to the year 1907." By these basic prices do you mean the prices per ton shown on Exhibit 41?

A. Yes, in a general way.

Q. What do you mean by the qualification, in a general way?

A. Recalling the quotation in the Iron Age, which is assumed to be authority.

Q. On page 54 of your report you say this, near the bottom of the page: "Recent quotation in the Iron Age of \$30 a ton for 2623 cast iron pipe confirm these basic prices which are obtained for a period of five years anterior to the year 1907, and give the following prices per foot for pipe laid without pavement." Do the words "these basic prices" which you there use in your report refer to the prices per ton for cast iron pipe shown on Exhibit 41?

A. They do. In using these basic prices I am using as near as I can in my opinion come to the average structural cost of these mains at the time and when they were laid.

Q. I want to call your attention to your testimony in the Buffalo case on page 534, Vol. 1 and ask you whether you testified there with reference to this chart as follows: "Q. What is this chart got, where did you get those figures? A. Those are R. D. Wood & Company's figures for 1905. Q. And you adopted them? A. Yes. Q. Without making an investigation of the conditions that existed here in Buffalo while this commission is sitting here? A. I deemed them more suitable for my use than even present prices of today. Q. Then to clear up the subject you computed our pipe, reproduced new today, on the basis of 1905 prices? A. The prices of iron furnished— Q. No, 1905 prices? A. I say on prices of iron furnished by R. D. Wood & Company for 1905." Did you — testify in the Buffalo case?

A. Of course it is a long ways back; that would be substantially what I think I did.

Q. You put the cost of excavation in Des Moines the same as the cost of excavation in Buffalo?

A. I did, after making proper inquiries, as any strange engineer would have to do.

Q. Did you investigate the conditions affecting the excavation in Buffalo?

2624 A. I did at that time.

Q. I want to call your attention to page 540 of your testimony in the Buffalo case and ask you whether you did not testify as follows with reference to that question: "Q. Now we have got pipe on the ground. Now how much does it cost to put in the ground, four inch pipe in the city of Buffalo? A. Will you give me that memorandum? (Mr. Babcock hands paper to witness.) The Witness: From the chart it appears to be about 12 cents per foot for excavation, back filling and the price given of \$633.60 is the cost per mile. Q. How deep do you excavate? A. For four inch pipe the depth to the bottom of the trench is fixed at three feet ten inches, the width of the trench two feet and the cubic yards in a foot trench 1.29 of a yard. Q. And on what basis of price? A. About four cents per cubic yard. Q. Did you ever know of any work being done in the city of Buffalo at that price? A. No but recent work has been done at Indianapolis at thirty cents. Q. Oh, you are talking about Indianapolis then? A. No about Buffalo. Q. What locality are you talking about? A. Buffalo. Q. What knowledge have you got about Buffalo conditions which enable you to testify to prices per cubic yard of excavation? A. The general knowledge that any man of average common sense would have. Q. No knowledge about this locality, special knowledge about this locality? A. Such as results from casual observation. Q. What casual observation have you had on that subject? A. I have been looking around for three weeks here, looking at the soil about. Q. Well have you advised with any contractors about what it costs them? A. I have not; I don't need to. Q. Can you evolve this out of your inner consciousness by looking at the soil? A. Well after 34 or 35 years of experience as an engineer, and I am pretty near right on 2625 that." Did you so testify as to your investigation and information of the soil condition in Buffalo?

A. I should think that would be substantially what I would say.

Q. Did you use this chart and take these same figures for the cost of pipe laying in Minneapolis?

A. No, I did not, because a large amount of that pipe is wrought iron piping.

Q. Now did you testify or state this or this in substance in Minneapolis, at the discussion of this matter there before the city council on Thursday, December 9th, 1909: Q. The question now arises as to how to get at, not the actual cost of this system of mains for that we have not data and I doubt very much whether or now the company could give it to us if they wanted to. The more I look at things the more I doubt the record of the company being complete and adequate having been kept up all through, and I am forced to go away from Minneapolis for my cost and my price to places where figures have been either freely given and more carefully kept.

In 1907 I was employed to make a careful inventory of the plant, mains and apparatus of the Buffalo Gas Company, and recalling the characteristics of that city and its altitude, and consequently its winter temperature, I selected it for comparison as the basis for computation for Minneapolis." Did you so state at the time and place which I mentioned heretofore?

A. I think so, yes.

Q. Did you proceed: "So far as the price of cast iron pipe was concerned I was controlled by the corporation counsel of Buffalo, directing me to take an average price covering a period of five years anterior to 1907, and which appears to me that this price would be a fair price to use in the case of the city of Minneapolis." 2626 Did you so state at the time and place mentioned?

A. You are asking an effort of memory I can't make very well. I think that is about what I would have said.

Q. Will you say you didn't say that?

A. No.

Q. Did the city council for the city of Buffalo direct you to take the average five year prices in making up this chart Exhibit 41?

A. The city council did not direct me so to do.

Q. You didn't take it, did you?

A. I did take it.

Q. An average of the five years' prices?

A. As near as I could get at it.

Q. You didn't take the price given you by R. D. Wood & Company for 1905?

A. I can't recall; I got as near a square deal for them as I knew how. Those prices you will find are about right.

Q. Now did you proceed at the time and place in Minneapolis I mentioned: "I bring this out with a good deal of confidence, gentlemen, for the following reason. It can be called a seasoned document. These had the worst that a large array of experts could do to shake it as of value. In fact it is simply the facts of the city of Buffalo system of laying mains put in the form of a diagram for easy use and actually derived from the records of the pipe departments and the water department, as far as excavation was concerned and verified in every case by computation and recomputation." Did you there refer to this chart and Exhibit 41?

A. I should say so.

Q. You say here it was verified as far as excavation was concerned as that statement was concerned?

2627 A. Yes, I stated so in a few moments here.

Q. Did you proceed at Minneapolis as follows at the time and place mentioned: "I don't think any engineer for a city similar in its characteristics and altitude would vary probably in fixing the price of the various sizes of mains. Now, that being the case you will find on examining this chart for the four inch mains laid in the street without pavement that the four inch line of pipe crosses this line for street work at about fifty cents. In other words, about fifty cents a lineal foot is what it would cost to lay a cast iron main in the unpaved street in Buffalo or Minneapolis."

A. I should say that I did say that.

Q. You testified for the city in June in Jersey City in June this year, didn't you?

A. Just before I came here, I don't recall exactly.

Q. And that city was interested in a hearing with reference to taxation?

A. Yes.

Q. Now, when you gave the Jersey City conditions did you take this same chart and fix the same prices for cast iron mains in the streets?

A. Exactly.

Q. Where does the Jersey City pipe come from, where is it manufactured?

A. I did not ask them.

Q. You don't know, do you?

A. No, I couldn't say positively.

Q. How do the freight rates between Des Moines, Minneapolis and Jersey City from the nearest available place compare?

A. You will have to ask a freight agent that. I should add 2628 to that reply, of course, you all know freight rates are very elastic where contracts are concerned.

Q. We don't know that since they commenced to enforce the interstate commerce act. Now, then, in Jersey City, when you referred to those prices, instead of going to R. D. Wood & Company as the source you said this in June of this year, on the 22nd or 23rd day of June, 1911, at a hearing at the city hall in Jersey City, in the matter of the appeal of the public service electric company and public service gas company upon the assessment of the 1910 property in Jersey City: "In reaching these prices I took the price of cast iron pipe as stated for the years 1902, 1903, 1904, 1905, 1906, and 1907 on an average and as checked by the quotations from the Iron Age for May 19, 1910 with which—" That is what you gave as the source of those prices there?

A. I mentioned the Iron Age to you a few moments ago.

Q. And you proceeded, didn't you: "In addition to taking the average prices as near as I could get at it, I used the usual methods of engineers, and added ten per cent undistributed charged to the cost of material and labor and fifteen per cent contractor's profit above and on top of that."

A. Yes.

Q. Did your prices you gave there include anything added to the cost of cast iron pipe on account of this ten or fifteen per cent?

A. It did not include any profit on the cast iron pipe as brought out a few moments ago.

Q. That pipe was not bought by the city of Jersey City?

A. This was a gas company case; yes the gas companies had about the same thing.

Q. You went on and explained that this way: A trifle over 25% is customary; if a contract is not awarded to a contractor it then is to be supervised by the higher officials of the concern and very frequently their salaries would interfere with that very work and make it veru costly to personally supervise it than

it would be to give it to a contractor with an average profit, who expects about 15%." Did you say that?

A. I expect so.

Q. You also produced this chart there, did you?

A. I don't recall whether I did or not.

Q. Wasn't this asked you: "What is the scale that you have there?" A. That is a very carefully studied cost of laying gas mains made from the records of the city of Buffalo from 1902 to 1907."

A. If it referred to this, that is about the description of it.

Q. And didn't you proceed: "These prices and computations you have made, do they represent the market cost of the material during the years that you have mentioned from 1902 to 1910, the average cost around New York?" A. Yes. Q. To which you have added these percentages you tell of? A. To which I have added the usual percentages."

A. Yes, that is right.

Q. You were asked there: "Q. Do these prices and computations represent the market cost of the material." What material was there of any consequence aside from the cast iron pipe?

A. I suppose lead and cement as well as cast iron pipe. Cast iron pipe is the controlling item.

Q. I find your lead and cement, etc., amount to 14 cents a foot on the 24 inch pipe against the \$2.68 for the cast iron pipe. Did you mean to say when you were asked for the cost of the material in Jersey City, and stated that you added this percentage to it, you took these trifling, insignificant materials and excluded cast iron pipe that would cost nearly twenty times as much?

2630 A. I am very glad you brought it out. It is the contractor's profit I added to and you will find it on the blue print as a contractor's profit.

Q. What I want to get at is when they asked you whether these prices shown by this same chart were the prices for material around New York, the average from 1902 to 1910, talking now about the material, and you told them yes, and then they went on and said, to which you have added these percentages you tell of, and you answered, to which I have added the usual percentages, did you mean then that you added that percentage only to these few cents of lead and cement, etc.

A. It is not so inconsiderable as it might seem. It came also on the pay roll.

Q. Is the pay roll material; this question is limited to material, I thought?

A. I said productive labor.

Q. And did you proceed: "Q. Those prices you have made do they represent the market cost of the material during the years you have mentioned from 1902 to 1910, the average cost around New York?" A. Yes." Now you knew and know now that says market cost of material?

A. Yes.

Q. Tell us again whether in response to that question you eliminated in your mind without referring to it in your answer all of the

cast iron pipe, or whether you included it in your answer and you did add this percentage to it?

A. I assumed that the company bought and paid for its cast iron pipe and turned it over to some contractor to lay, if it was a large job or else made it itself if it had a small job. Of course I did not include ten per cent profit undistributed charges, or fifteen
2631 per cent profit on the cost of the iron pipe, but merely what went to pull the contractor through.

Q. Now you have testified here that you took those prices from the Iron Age, May 19, 1910, on cast iron pipe and then did what was customary, add a dollar on account of the higher price of gas pipe, because this was water pipe.

A. No, I don't think I testified that; if you will kindly read what I did testify to there.

Q. Is there any variation between the price of gas pipe and water pipe?

A. It is usual to reckon about a dollar difference in favor of the gas pipe, as it runs lighter.

Q. Is the gas pipe higher or lower?

A. A little higher.

Q. About a dollar a ton?

A. Yes.

Q. You referred to the Iron Age of May 19, 1910?

A. Yes.

Q. Now all that says about cast iron pipe is this, isn't it, on page 1162: There were cast iron pipe, there were no large municipal lettings last week in the west but a fair line of small lettings and orders from municipalities; some business was received from the railroads for culvert piping; in Chicago four inch water pipe was quoted at \$28.50. Will you tell us what you took on your chart for water pipes?

A. I didn't mean anything more than an average in that case, four inch gas pipe here is \$28.80.

Q. So it is fifty cents over these figures instead of a dollar?

A. It depends a good deal on the size of the contract you let. These men all cut. The U. G. I. can get deeper cuts than
2632 anybody else.

Q. You in your testimony said you took the Iron Age figures?

A. As an average, yes.

Q. This proceeds: Water pipe four inch \$28.50; six to twelve inch, \$27.50; and 16 inches up \$26.50, with one dollar extra for gas pipe. Did you add the dollar?

A. No, I didn't.

Q. You didn't add freight to Des Moines, did you?

A. No, it is impossible to find out what that would be.

Q. You mean to say it is impossible to find out what the freight rate is from Chicago to Des Moines?

A. It is quite impossible to find out what the real freights are in the United States in regard to the monster trusts today; the U. G. I. is in the game.

Q. Is the U. G. I. engaged in the manufacture of gas and iron piping?

A. No.

Q. You are under oath, will you give us one specific instance upon which you base that statement with reference to the U. G. I.?

A. I certainly will not withdraw it. I happen to know the highest official of that concern, Thomas Dolan, and I know if anybody in the United States gets inside figures, it is that gentleman and his associates. It is of course not in the nature of legal proof; it is simply my general knowledge of the situation.

Q. You know what you are swearing to here amounts to charging these people with a crime, with the violation of the interstate commerce act, you know that?

A. Not specifically; I am simply charging them with getting inside prices.

Q. You are charging them with getting concessions on the freight rates from the tariff rates?

2633 A. I didn't put it that way.

Q. That was the essence of it?

A. I distinctly make the statement that I am morally convinced they get less freight rate than any gas machinery ever gets.

Q. Do you say on your oath here that they get freight rates that are less than the published tariff rates?

A. I don't know what they are. I do say I am certain, as you must be that they get the best rates and lowest rates going on everything.

Q. Do you still adhere to your statement that it is impossible to ascertain the freight rates on cast iron pipe between Chicago and Des Moines?

A. For an individual, you mean like myself, making an inquiry like myself, I wouldn't believe one word they said to me in regard to freight rates, going in my individual capacity; I wasn't born last summer.

Q. So that it is impossible for you to ascertain what cast iron pipe would be worth laid down in Des Moines?

A. By mere inquiry, yes.

Q. I didn't say mere inquiry, can you ascertain what cast iron pipe is worth laid down in Des Moines?

A. That would depend on the size of the contract largely.

Q. Can you ascertain what cast iron pipe is worth laid down in Des Moines?

A. That would depend on the size of the contract.

Q. So you could or couldn't ascertain?

A. Yes, sir.

Q. Did you attempt to ascertain for the purposes of this case?

A. No, I did not.

2634 Q. Would it surprise you if you learned that the average price paid by the company for cast iron pipe laid down in Des Moines in the last five years is over \$32 a ton, and if you should learn that was a fact would that in any way affect your confidence in the correctness of your conclusions?

A. The books are the best evidence, and you have the figures of

course as to what you actually paid. I should believe what I saw in the books if they are properly kept and properly interpreted.

Q. I wish you would turn over to another page of your excluded items, page 71; you have estimated here the cost of replacing pavement, have you not, at the top of page 71, asphalt on concrete?

A. Yes.

Q. And at how much per square yard?

A. \$1.85.

Q. Now, will you turn to this chart, Exhibit 41, and tell us how much you estimated it a running foot in a trench two feet wide?

A. I don't seem to find asphalt on this—\$3 a square yard. Here it is given at \$1.85 which is the statement of ex-City Engineer Dobson as to the actual figures which had been paid.

Q. Did he have bids on work like this, piece-meal work like this?

A. Again I don't wish to say positively in regard to that matter. I asked him about that and I think he can verify it or contradict it according to the actual facts of the case. I think he said that all repairs to the streets were to be made at the contract price so that I took it for granted that would cover patch work in the way of paving.

Q. You know that is a part of a general contract for doing all the work?

A. I knew of course it was.

Q. How did you get these costs of this asphalt work in Buffalo?

2635 A. By inquiry there, just as I would make inquiry in any city where I was not actually engaged.

Q. Did you testify in Buffalo from this same chart that the cost of asphalt paving was 97 cents on a two foot ditch per lineal foot?

Objected to on part of defendants as being irrelevant and immaterial.

A. It is so far back, I'll go over it again if you like.

Q. The difference between 97 cents and \$3 is very marked?

A. A two foot ditch?

Q. One lineal foot would be two square feet?

A. Yes.

Q. And nine square feet in a yard?

A. Yes.

Q. Four and half times one lineal foot would make a square yard?

A. Well, it may be a typographical error; it is quite possible, in fact it is so far back without going over the thing again, it must be obvious to you that I cannot recall distinctly as to what I said four years ago.

Q. Will you kindly check there again and see whether it shows 97 cents, how much per lineal foot is required for asphalt on concrete?

A. Well, I don't know whether it is mentioned here or not. I think I instructed the assistant who did that for me to allow six inches extra on each side, so that instead of being for a two foot ditch, instead of the cut of asphalt being exactly two feet it would be three feet wide.

Q. Your recollection about that is distinct and specific?

A. No, I was only thinking of the custom.

Q. Take a six inch pipe or a four inch pipe and get your asphalt for a running foot from the chart of asphalt on concrete—
2636 take a four inch pipe for a two foot ditch?

A. The cost per foot for streets with brick, asphalt, block stone on concrete, the cost of a four inch pipe complete laid in the ditch without pavement is about fifty cents per lineal foot, and the cost of a four inch main complete, laid in the ditch, with pavement of asphalt or block stone on concrete, is given here as \$1.45 on the chart.

Q. That would be 95 cents a foot for the asphalt or other pavement?

A. That would be 95 cents a foot, assuming it to be \$3. per square yard in Buffalo, and assuming what would be usually done, a cut would be made of six inches from the side of the edge.

Q. Did you investigate to see whether the cost of laying asphalt pavement was the same in Des Moines that it was in Buffalo?

A. Yes.

Q. You found it was pretty near twice as much to lay asphalt in Buffalo as in Des Moines?

A. At the time such were the facts; that is one reason why you always have to make local inquiries.

Q. On the asphalt pavement you took Mr. Dobson's straight contract prices, that is, if a man would lay ten or a dozen blocks of asphalt in the street here?

A. Yes.

Q. You think it would cost more to do the work if you had to do it in small pieces than in large jobs?

A. I suppose so, yes.

Q. Take the next item, wood block on concrete, \$3 a yard?

A. If I remember rightly, I talked with quite a number about paving in this city, and finally went over the matter with Mr. Dobson, going into the exact figures assembled from the city records.

Q. Did you get the figures from the city records here the
2637 way you did in Buffalo?

A. I did not get them, Mr. Dobson got them.

Q. Before I forget it, where in these prices for this pipe is the engineering?

A. Engineering and omission, etc.?

Q. Yes.

A. It is allowed as explained to you previously in ten per cent undistributed charges, whatever engineering is required; practically as a matter of fact all the men that superintend this street patch work have their pay charged up to the operating cost.

Q. If we were reproducing this plant it would require an engineer to lay out the system of mains?

A. I am giving you the structural cost.

Q. If we were reconstructing this plant you would have to have an engineer to lay off your system of mains?

A. It would pay in the end; it is not often done you know.

Q. It would be necessary if you were to construct this plant economically to have an engineer of practical experience lay out your system of mains and specify the size of the pipe and locate your valves, drips and everything of that kind?

A. It would pay in the end, but it is not often done.

Q. That is not just what I asked you. It would be necessary to do this if you were to construct the plant economically?

A. No, for the simple reason that it is not very frequently done.

Q. Give us one or two cases where it is not done?

A. I think Des Moines is a pretty fair sample.

Q. I want you to give me a concrete case that you know of where a system has been constructed without having an engineer lay out a system of mains.

A. I was just trying to tell you; I think Des Moines, judging from the maps—

Q. You said usually they did not employ an engineer to lay out the mains; I would like to have you give us one case you know of where any work of any considerable amount was done without employing an engineer?

A. You mean, and charging their pay specially to the mains?

Q. I mean just what I say; I would like to have you give us one case you know of building a gas plant or of the building of a large addition to a gas plant where it involved the laying of a system of mains or a large addition to the system of mains, where an engineer was not employed to lay out the mains?

A. I think in almost every case a draftsman or engineer is employed, such a matter as that, but his pay is usually charged to operating expenses.

Q. You told us a few moments ago usually an engineer was not employed?

A. I meant directly and charged to the job, that is what I meant.

Q. In other words, to get back to the question I asked you at first, it is necessary to employ an engineer to pay out a system of mains if it is to be an efficient system and economically constructed?

A. You put that condition in and I agree with you, but in the majority of cases that is not so.

Q. Where in the items that make up your 36 cents for instance, 49 cents, take the four inch main, how much have you allowed in there for engineering and superintendence; where do we find it?

A. Four inch main, 49 cents, first of all I assumed in patch work of the sort done—

Q. I am talking about the item of 49 cents for this specific job?

A. There would be no specific charge against it, for the salary of the engineer who laid it out; he would be called an engineer on the works and it would be charged up to the cost of making gas; but to be on the safe side I allowed ten per cent undistributed charges, you would find it in there.

Q. Ten per cent of what?

A. On all the expenses outside of buying the cast iron mains.

Q. And did you then put 25 per cent on top of that?

A. Fifteen per cent on top of that.

Q. So that in order to get at it—see if this is right—take the 49 cents for instance, and the cost of the bare pipe is 27½ cents?

A. There is a line here called cost per foot for straight pipe not laid.

Q. That is 27½ cents, isn't it?

A. 4 inch pipe, about that.

Q. That would be 27½ cents taken from the 49; am I right?

A. 21½ cents with all the other expenses besides the main.

At this time an adjournment was taken until 1:30 p. m.

2640

1:30 P. M. MONDAY, August 21, 1911.

WILLIAM D. MARKS continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. I was asking you before luncheon I think about whereabouts in this analysis of the cost of pipe in the ground that you find this engineering?

A. Pardon me, you were asking me about the difference in price between asphalt wasn't you?

Q. No, I had passed that. Before I take that up. I see you have now this typewritten memorandum from which the chart was made up which shows the various prices in figures. Will you give us the price per foot of the various sizes of cast iron pipe?

A. Under the head of straight pipe, column five.

Q. Begin with three inch?

A. Three inch, 19.2 cents, 4 inch 27½ cents. 6 inch 40½ cents; 8 inch 58 cents; 10 inch 78 cents. 12 inch 97.2 cents 16 inch, \$1.48. 20 inch, 2.067; 24 inch \$2.68. Do you wish to go any farther?

Q. No, I think that covers all the sizes here doesn't it?

A. Yes.

Q. Now there is no engineering in that is there?

A. No.

Q. Now is there any engineering in the special castings?

A. No. I can cut that short by telling you whatever engineering there may be there, is either in the ten per cent of the whole or in the miscellaneous per foot.

Q. Now the miscellaneous per foot amounts to—

A. That is column eleven.

Q. Ten isn't it?

2641 A. Column 11, miscellaneous per foot.

Q. What is column 10?

A. Column 10 is labor in street with macadam surface.

Q. Now your miscellaneous begins with one cent for three inch pipe don't it?

A. For two inch wrought iron pipe.

Q. I am asking about cast iron pipe?

A. Yes; three inch cast iron pipe one cent.

Q. Now go on down in sizes for that.

A. Three inch one cent; 4 inch 2 cents; 6 inch 3 cents; 8 inch 3

cents. 10 inch 4 cents; 12 inch 5 cents; 16 inch 7 cents 20 inch 8 cents; 24 inch 10 cents.

Q. Now does this miscellaneous run any fixed per centage of the whole?

A. It does not. I recall that the miscellaneous expenses is all sorts of things that could not well be classified and that it was quite irregular for the various sizes and that finally it was added up and smoothed out a little bit. In other words it was smoothed out to the extent of not bothering with anything except the nearest cent.

Q. Well take your three inch pipe the cost given here is 36 cents isn't it for the whole thing?

A. That is 36 cents.

Q. Your one cent miscellaneous is a little under 3 per cent of that?

A. Just about.

Q. It is not three per cent on the next size?

A. You are referring now to the 6 inch?

Q. No, the 4 inch.

A. That is two cents in 45 cents isn't it?

Q. 48½. Three per cent would be a cent and a half and
2642 you equalize- that and made it two cents?

A. Let me explain that the last column under the heading 27 is a double column and that my own figures finally taken by myself figures that I worked out and that there is a column alongside of it called Buffalo are the figures that I found somewhere in some paper given for Buffalo gas pipe, I think by a gas engineer of theirs.

Q. The fact is, isn't it that this plat, Exhibit 41, is what you used in the Buffalo case and that the figures you have made up and are using there are not exactly the same figures that you used in the Buffalo case?

A. Well it is a long ways back. I think you will find that I have always thrown any favor of the company.

Q. I call your attention to this paper in the volume of Exhibits in the Buffalo case, marked Respondent's Exhibit "G" and ask you whether or not that is not a copy of the figures which you used in the Buffalo case which you produced on that hearing at that time. Perhaps I can refresh your recollection about that a little. Let me read this to you and see if this refreshes your recollection, commencing at page 610 of your testimony in that case, referring to some paper "Commissioner Davies: Did you not just say Mr. Marks you did not quite understand what Mr. Babcock wanted a moment ago. A. Yes. Q. But that you did not have it here to use it?

A. I did use it to make more accurate work. Commissioner Shedden: And referred to it in your testimony? A. And referred to it. Commissioner Davies: Produce it then. (Produces paper.) A. This is the original from which—Commissioner Davies: Hand it to Mr. Babcock. A. And from which the blue print chart has been made out. It contains a great deal of information in addition to that—Commissioner Davies: Well you are here to give them all the information you are in possession of. Mr. Babcock: Will you check off in pencil what columns you used in

2643

calculating your cost. Just check the vertical columns that you used in connection with your calculations, then we will know the basis of your computations. (Witness marks on sheet with pencil.)

Q. How have you indicated it? A. By putting a ring around those columns which were used. Q. Now will that enable us with the blue print to re-compute your figures? A. If you wish. Mr. Babcock: I would like to have that marked for identification. (Paper marked Respondents Exhibit "G" for identification.) You notice the paper to which I call your attention is marked Respondent's Exhibit "G" do you not?

A. Yes, sir.

Q. Does this refresh your recollection so you can say whether or not that is the paper which you used in Buffalo and from which this chart, Exhibit 41 was made up or a copy of it?

A. It appears to contain about the same figures but rearranged when being copied. I see there is some below here, the lower part of this exhibit off to the left hand lower side I assume for the sake of room having been stuck over here on the end. I have no reason to believe it is not substantially what I put in, wherever I have caught it, it seemed about right. There may be a few points that it is wrong.

Q. Then this respondent's Exhibit "G" pages 209, 210, 211, 212 and 213 of the volume of exhibits in the Buffalo case is the paper or copy of the paper which you produced there as the paper containing figures from which this blue print was made?

A. It appears to be a copy of this paper used there slightly rearranged, I find no difference in figures in a cursory glance
2644 over it.

Q. Referring to this Exhibit "G" column one, contains the sizes of pipe under the head "diameter of pipe?"

A. Yes, sir.

Q. Column 2, Cost per ton of 2,000 pounds in Buffalo New York?

A. Yes, sir.

Q. Three, weight per length in pounds?

A. Yes, sir.

Q. Four, weight per foot?

A. Yes, sir.

— Five, straight pipe?

A. Yes, cost per foot for straight pipe. That is column five.

Q. Now there is here this heading at the top of the whole paper see whether you have it also in the one you are using, that is here in this respondent's Exhibit "G" "Estimated cost of laying gas mains 1907, elaborated for use in Buffalo, N. Y.?"

A. Change that to 1906.

Q. 1906?

A. Yes, 1906. I presume it is just a typographical error.

Q. Elaborated for use in Buffalo, N. Y. Figures include 15 per cent contractor's profit and ten per cent undistributed expense?

A. Yes, sir.

Q. Then getting back the 5th column is cost per foot for straight pipe.

A. I have changed this to figures include 15 per cent of laying contractor's profit.

Q. I don't care anything about what you change on that.

A. I want to see what this one is.

Q. The 5th column is cost per foot for straight pipe.

A. Yes, sir.

Q. The 6th column is cost per foot of special castings.

2645 A. Yes, per foot of straight pipe.

Q. General heading, cost per foot for, and the subhead special casting?

A. Yes, sir. That is in addition to cost of pipe.

Q. The next column 7 is under the same general head cost per foot and is lead pipes, cement, etc.

A. Yes, sir.

Q. Next parting pipe?

A. Yes, sir.

Q. Next tools, etc.?

A. Yes, sir.

Q. Next miscellaneous?

A. No, the next is No. 10, labor in streets with macadam surface.

Q. That don't appear here. That must have been added since you furnished these Buffalo figures wasn't it?

A. I don't know about that.

Q. Now let's have that column labor in streets having macadam surface?

A. That is column 10, is what—

Q. Give us that in the 3 inch and then on down?

A. Three inch pipe ten cents, 4 inch pipe 10 cents, 6 inch pipe 12 cents, 8 inch pipe 14 cents, 10 inch pipe 14 cents, 12 inch pipe 15½ cents, 16 inch pipe 16 cents, 20 inch pipe 17 cents. 24 inch pipe 17 cents.

Q. Give us the heading of this column again please?

A. Labor in streets with macadam surface.

COURT: What does that mean, in removing macadam?

A. There were some streets as I recall it in Buffalo that were likely macadam, quite a number of them.

COURT: This is the labor for removing the macadam and 2646 digging the streets complete?

A. Through Macadam, put the macadam back, instead of through straight earth without any pavement there at all.

Q. That is not the cost of the paving is it?

A. No.

Q. Nor the cost of replacing paving. You have a column there have you not stone or macadam at \$1.50 a square yard.

A. I have a total cost per foot for laying gas mains, streets with macadam top—

Q. No, I don't mean that. What is the column following miscellaneous Miscellaneous here is 10, you have it 11 I understand. Now what is column 12?

A. Column 12 is streets macadam top outside of city proper.

Q. And what about it?

A. There are prices given.

Q. For what?

A. For the cost of laying pipe per foot and putting pavement back.

Q. Now will you give us that column for these various sizes, 3, 4, 6, 8, 10 12 16, 20 and 24?

A. Streets with macadam top outside city proper?

Q. Yes, whatever it is there your column 12?

A. Column 12, yes. Three inch cast iron pipe 46 cents. 4 inch cast iron pipe 58½ cents; 6 inch cast iron pipe 88½ cents. 8 inch cast iron pipe \$1.07. 10 inch cast iron pipe \$1.33. 12 inch cast iron pipe \$1.62½ cents. 16 inch cast iron pipe \$2.27. 20 inch cast iron pipe \$3.00. 24 inch cast iron pipe \$3.73.

Q. Have you a column here headed cost per foot for paving stone or macadam, \$1.50 a square yard?

A. I don't find such a column here. What is the number 2647 of that column.

Q. It is No. 11 here. Macadam or stone is marked on this blue print \$1.50.

A. The streets with macadam top outside of city proper run as follows, perhaps you can catch it by coincidence of figures. 3 inch, 34 cents—

Q. That don't check. This is 50, 50, 50, 58, and so on, nothing under 50 in this column 11 here.

A. I don't find it here.

Q. Now then have you cost per foot for paving brick, asphalt or block stone on concrete at \$3.00 a square yard, it is column 1w in respondent's Exhibit "G" in the Buffalo case?

A. I have one here asphalt \$3.00 a square yard, beginning at \$1.00 for three and \$1.00 for four.

Q. That is asphalt alone?

A. No, asphalt is not put down, not intended to be put down except on concrete base.

Q. Is asphalt the only kind of paving that column covers, you misunderstood me?

A. Yes, that is the only one it gives there.

Q. That shows \$1.00 a foot for four inch pipe for asphalt instead of 95 cents scheduled here this morning?

A. No, I think this is intended—

Q. Pardon me, this column in respondent's Exhibit "G" is headed cost per foot for paving, sub head brick, asphalt, or block stone on concrete \$3.00 a square yard, that would not include anything but paving?

A. No that includes nothing but paving. A three inch main is put down \$1.00 here. Now if it came out 97 cents on the average of figures, figuring down by two or three computers, I think 2648 with me it would be perfectly natural for me to stick it down at \$1.00 and let it go at that.

Q. Now I want to get back at your column 11, give me the heading of that again, or ten?

A. Labor in streets with macadam surface. It is evident that that was all got from some particular paper or contract that fell into my hands which showed the difference between the labor in the

street without anything on, clean dirt, and labor in the street with the coating of macadam put in.

Q. You don't mean b- tha- the excavation do you?

A. That is just exactly what I think I do mean if I could find it here. If I could find the labor. My column 22 here excavation and filling city proper 40 cents per cubic yard gives eleven cents a foot.

Q. For three inch stuff?

A. Three inch stuff and also eleven cents for four inch stuff?

Q. This gives ten cents in your macadam?

A. Yes, sir. I will tell you where that came in I think, in this I distinguish between the city proper and outside the city and it is a factor that you could theorize about but it is an undeniable fact that where there is much traffic the work goes on slower.

Q. Costs more money. I have no doubt about that. Then you think this column eleven—will you read the heading of that again please?

A. Labor in street with macadam surface.

Q. That don't indicate it is outside the city?

A. No, but—when I say city proper I don't mean city limits, I mean what they call the city, for instance in London, the *the* busy part of the city.

2649 —. I think you better leave that out, I can't place it very well -yself.

Q. Maybe I can help you. Take your column there headed labors in streets with macadam surface and your streets with macadam top outside city proper and you will find that you added—

A. Column 10, I see it now, thank you.

Q. You added your labor in streets having macadam surface to the unit price in streets that were unpaved.

A. Yes, sir.

Q. To get streets with macadam top outside of the city?

A. Yes, sir.

Q. So that ten cents does not include the trenching which you have in these unit prices does it?

A. That is right, thank you.

Q. But that is extra work on account of the macadam?

A. I presume so.

Q. Now what do you say as to whether the paper which you are using there is a copy of the paper you used in Buffalo after the comparison we have been trying to make here?

A. I was under the impression it was and I think any differences there may be, occur from some marking which was done on it which was mentioned at the time.

Q. Don't appear to be any marking here or changing?

A. No, but when I handed over a copy of this I think some were marked down by some request of counsel or commission.

Q. Was there anything aside from the indications on the columns that you took into account?

A. Quite impossible to remember four years back.

Q. Have you any objections to having that paper you are using marked and offered as an exhibit?

A. Certainly not.

2650 Q. I would like to have it marked and also like to have this exhibit in the Buffalo case marked as an Exhibit. The paper marked by the reporter, complainant's exhibit 42, is the copy of the paper which you have been using?

A. Yes, sir.

Q. The paper that is referred to as respondent's exhibit "G" in the Buffalo case is the one marked complainant's exhibit 43.

A. Yes, sir.

Q. Now to get back in which one of these items here that go to make up the total say of your 49 cents on the 4 inch pipe is the engineering?

A. Well- I should say that 10 per cent undistributed charge contained the engineering perhaps if there was any done—of course I didn't theorize about it at all, I simply took what I found to be actually done, if there was — done at all, and some other charges such as permits and that sort of thing that come in. I at first thought miscellaneous charges contained permits but I think now the miscellaneous per foot is the caulker's gang and the pipe handlers along the edge of the ditch and something of that sort.

Q. You also said it covered the store house charges, unloading cars and that sort of thing.

A. Everything was intended in and I think the hauling and carting, you call it carting pipe here covers that.

Q. You told us it was in the miscellaneous didn't you?

A. If there was anything in the way of storing anything I could not charge to carting I probably stuck it in miscellaneous.

Q. You told us further the cost of handling pipe, what you call store house charges were in the miscellaneous didn't you?

A. If it was not in the carting.

2651 Q. Now just tell us which one of these items were taken as the basis of the computation of this ten per cent?

A. All of them.

Q. You mean by that—you don't mean straight pipe?

A. Oh no I am talking about now, about what the contractor did

Q. You don't mean special castings?

A. The contractor don't furnish special castings.

Q. The contractor furnishes lead, cement etc.?

— He did.

Q. Cartage?

A. And the cartage.

Q. And tools?

A. And the tools.

Q. And miscellaneous?

A. And the labor, the labor is the big item.

Q. Where is that?

A. Excavation. Column 22, excavation and filling city proper 40 cents per yard.

Q. That is column 13 here. Then it is on these items that this 10 per cent is figured?

A. I think it is.

Q. And on no others?

A. Oh I won't say that.

Q. Well don't you know?

A. I could settle down and figure it all out if you wanted me to go at it. I want to say and assure you there is absolutely nothing omitted here that could in any way come in the way of expense.

Q. About what is a proper charge for pipe laying per foot or per mile or per length or per anything else on four inch pipe.

A. Do you mean for instance the total cost per foot for pipe laid?

Four inch pipe is—

2652 Q. No, I don't mean that, you misunderstood me. You have some men you call caulkers you say?

A. Yes, sir.

Q. They are not men used in doing excavation?

A. No.

Q. You have some men you call pipe handlers don't you?

A. Yes, work along the ditch.

Q. What is the duty of the pipe handlers?

A. The teamster drives up along side of the ditch and the pipe handler generally gets out, skids, and the teamster gets out his rope and they have a few hand spikes and the teamster lets go of the rope until it rolls down and the pipe handler with their hand spikes generally have a tripod or a frame and when the boss caulker calls for a pipe they cling it in.

Q. Pipe handlers men as then that take the pipe from the wagons, unload it or help unload it at the ditch and then put it into the ditch?

A. Yes, with the aid of the caulkers if the caulkers are not busy.

Q. And the caulkers make the joints in the ditch and also I suppose see that the pipe is laid at the proper level and proper direction?

A. That is it.

Q. And neither of these gangs do this excavating?

A. Well that is depending on how you are working. A good handy gang and a small job you don't want many men on it for working advantageously and they will swap around, do most anything if you have got a good boss.

Q. That is not the ordinary way of laying pipe is it? What do pipe caulkers get a day?

2653 A. I don't know.

Q. What do they pay men for digging a trench a day?

A. That depends a good deal on the men, dagoes, I suppose about a dollar and a half along about there, able bodied men usually and as high as \$2.00 and \$2.25.

Q. Do you know what the price is the city is paying now for common labor in Des Moines?

A. I do not. I was told too, I reported it to you.

Q. You need not hunt for it. Now I want to know whereabouts in this estimate this labor performed by the caulkers and pipe handlers appears, what item?

A. Miscellaneous I told you.

Q. That also includes this ten per cent does it?

A. No. It is ten per cent of the whole business.

Q. That is spread over all the items?

A. Intended to be, yes. In other words you might say miscellaneous in a rude way is ten per cent too much.

Q. It is 110 per cent of what you base it on?

A. Of what we found.

— What is a fair price for six inch pipe, or fair cost for six inch pipe for the labor of the caulkers and of the pipe handlers either per foot or per length or per mile or any other basis you want to take?

A. That is getting down very fine but suppose you take it miscellaneous per foot and cut a little off that if it looks big. Six inch, about three cents.

Q. Your three cents includes other matters don't it, besides this labor?

A. It is very probably too I think there was a system of inspection there or taking out permits or was there at the time, they
2654 didn't amount to much, but had to be gotten in somewhere, I think that went in.

Q. Also includes your handling pipes at the yards and so on?

A. I don't recollect whether they handled pipes much in the yard there or not if it at all.

Q. You can't unload from the cars and distribute on the streets an a big job?

A. That is just what they try to do right along.

Q. If they wait until they get ready before they order they take chances on not being promptly filled don't they and costing money?

A. Oh yes.

Q. That would not be a very conservative way to do work?

A. No.

Q. And in these days pay demurrage if they don't unload cars promptly?

A. Railroads are pretty accommodating if they find the right sort of a switch roll the pipe out and let them lay there and let them take the cars. They don't bother you if out of the way on the siding.

Q. Involves unloading pipes from the cars and the small sizes have to be put into store houses?

A. Everything is in the carting if I remember rightly that occurs between the time they swing the pipe out of the cars and land it inside of the ditch, but I can't give you details of it now four years afterwards.

Q. Have you any idea what your total for your ten per cent and fifteen per cent are in this item of pipe, this aggregate item of pipe?

A. I suppose it could be figured.

2655 Q. You haven't figured it?

A. I did four years ago, but as far as looking up work of mine four years old, might as well be done by another man, I sat

down and looked it over makes no difference what kind of work I have done.

Q. Passing that then, I see something here I want to ask you about for a moment on page 76. On that page the 5th line from the top of the page you have the structural cost of the whole investment per thousand cubic feet sold, \$3.22.

A. Yes, sir.

Q. And that is how much in dollars from the total there from which you got your \$3.22?

A. \$1,700,215 structural cost.

Q. Now then what is the amount of this distribution system on which you figure no depreciation in dollars?

A. The structural cost and the present value both are \$625,947.

Q. So by deducting that \$652,947 from \$1,700,215.00 it will give me the original cost as you make it on the property upon which you figure depreciation?

A. Yes, I think so. Wait a minute let me think that over. On page 72 inventory page 83, contents houses, 6 A, B and C, and No. 7 for water gas manufacturing \$62,311 for both structural cost and present value. There is no depreciation figured.

Q. That is about a thousand miles from what I asked you. As I understood you a moment ago you got \$1,700,215 as the cost of all of the property?

A. Yes, sir.

Q. Then you got \$652,947 as the cost of the mains upon which you figured no depreciation?

A. That is it.

2656 Mr. BYERS: He just told you there was another item he didn't figure any depreciation.

Q. If I deduct that amount I have \$1,047,268. Now there are other properties to be deducted are there not?

A. Yes, sir.

Q. Can you give them?

A. Contents generator house.

Q. These are amounts for how much?

A. \$62,311 for both structural cost and present value.

Q. Anything else?

A. The only thing that I—these are the only two things I see that are not depreciated. Then there is the land owned which was given to me—

Q. You didn't depreciate the land did you?

A. No, I appreciated it.

Q. I want to get that property that was not depreciated. I don't care for small items. Now then what was the total amount of depreciation which you charged against this property not taking into account appreciation in real estate, excluding that.

A. The residual appreciation—

Q. No, I don't want that. Not residual depreciation. I want

to know how much you charged against us in dollars here on account of depreciation.

A. \$299,128.

Q. That is the net amount is it?

A. That is the amount.

Q. Don't that include appreciation of real estate?

A. Yes, sir.

Q. Well give us the amount if the depreciation with appreciation on the real estate out?

2657 A. On page 77 the structures of this gas plant and apparatus for the purpose of supplying gas is depreciated \$363,-

363. And the land purchased for the purpose of supplying gas—

Q. I don't care about that, you have answered the question. If you took out depreciation to the amount of \$363,363, charged that against the property, which you estimated to cost \$1,700,215 it gives \$984,957?

A. Wait until I figure it.

Q. Cost \$1,700,215, mains \$652,947 which I deducted then giving a balance of \$1,047,268. You gave me another item \$62,311. That leaves a balance \$984,957?

A. 984,957.

Q. That property you depreciated to the extent of \$363,363?

A. That seems to be what I depreciated.

Q. Or about 37 per cent on the average?

A. 36.8 per cent.

Q. That would give present per cent condition on the average 63.2?

A. Meaning by that of course what is left, 63.2?

Q. Now you give us a value of thousand cubic feet sold of \$2.65 in your report, page 76?

A. Yes, sir.

Q. Now do you remember a conversation that you had with Mr. Haines on or about the 3d day of February 1911 at the office of the gas company here in the city at which yourself, Mr. Haines, Mayor Hanna and myself were present?

A. I remember such a meeting.

Q. And do you remember telling us at that meeting that the value of the plant here should be from \$4.50 to \$5.00 per thousand cubic feet of annual sales?

A. I don't recollect that at all.

Q. Would you say that you didn't say that?

2658 A. I might have said that the original cost would approximate \$4.00 something of that sort. I hadn't at that time seen the plant at all if I remember rightly and probably spoke of the original cost of other plants and not of this at all.

Q. And did you not, in that conversation say that the value of the property of this company should be somewhere from \$4.50 to \$5.00 per cubic feet of annual sales.

A. I certainly didn't say so in regard to this property. I may have said such were generally the facts in regard to gas works mean-

ing more particularly with regard to coal gas works and meaning by that not present value, but original structural cost.

Q. I only asked you what you said in this conversation. And you also told us at that same time didn't you that gas could be furnished at the meter for from 50 cents to 52 cents a thousand in your judgment?

A. You mean at a cost of 50 to 52 cents?

Q. Yes.

A. Yes, seemed to me it ought to be.

Q. Do you remember that in that conversation I took a piece of paper and made a memorandum of those amounts asking you if you had any objection to me putting them down?

A. I don't remember that at all. It seems, if you will allow me to explain, it seems almost impossible I should have expressed any such opinion in regard to works which I had not seen had not examined carefully. I could have mentioned these facts as being common facts in the case of most of the works of the country, but at that time I am quite sure I was not aware of the fact that they make nothing else but carburetted water gas and no coal gas at all.

2659 Q. And you went on did you not in that conversation to compute the return on the ba-is of \$4.50 or \$5.00 as the average cost per thousand cubic feet and reached the conclusion that 90 cents was a very reasonable rate and profitable to the company didn't you?

A. I don't remember of computing in the presence of any of you, in fact I don't think I did anything of the sort.

Q. And in that conversation——

A. I probably did say that I believe 90 cents to be a very liberal price because it was a remark which I had made to the mayor before going to your office at all and that is the only thing that I recall distinctly.

Q. And you computed that and told us did you not in that conversation that on a seven and a half per cent basis it would require 30 to 37½ cents per thousand cubic feet to take care of the investment making a fair price from 80 cents to 87½.

A. Wasn't it from 82½ to 89½ wasn't it about that?

Q. No, I have the memorandum before that I made at the time.

A. I think you are mistaken about that, my opinion was it was all generalization and I made no computations to you whatever doing nothing more than discussing the problem generally about 82½—might be 82½ and might be 89½ would be the price that would be fair. I am quite certain that I did not in any way profess any knowledge whatsoever of your works in any detail or form, I was discussing the price of gas generally throughout the United States.

Q. I think somewhere there has been some reference to a letter or report that you made to the mayor about the 17th of February 1911

A. Yes, sir.

Q. Have you a copy of that with you?

2660

A. I have not, no.

Mr. GUERNSEY: Will you produce that Mr. Brennan, please?

Mr. BRENNAN: What letter is it you want?

Mr. GUERNSEY: It is the letter from Mr. Marks to the Mayor, dated February 17, 1911.

Mr. BRENNAN: I don't recall that any reference was made to it up to this time, but we will look it up.

Mr. GUERNSEY: I don't know whether there has been here, but I think there was some conference at which there was some reference to that.

Q. Didn't you say this in that letter, speaking generally I should estimate the probable cost of gas in Des Moines as follows: Cost of gas, 18 candle power at consumer's meter 45 to 50 cents. Royalty 2 cents. 52 cents. Investment profit, \$4.00 per thousand sold at $7\frac{1}{2}$ per cent 30 cents, or \$5.00 per thousand sold at $7\frac{1}{2}$ per cent $37\frac{1}{2}$ cents. Fair liberal price $89\frac{1}{2}$ cents. Didn't you say that in that letter?

A. Well I know I put $89\frac{1}{2}$ cents as the outside price but I want to say I didn't base it on these works at all, but it was in response to a request from the Mayor to give him an idea of what gas should be made for and sold for here and I very naturally took coal gas as being at least part of your concern not knowing that you had the cheaper process and cheaper plant in some ways of gas, carburetted water gas.

Q. In this letter then you did estimate the value of the plant at four to five dollars per thousand cubic feet of sales?

A. I did nothing of the sort. I venture no estimate whatever on what you had here for I had no facts to base any such estimate at all.

Q. Didn't you as I have just read in this letter compute 2661 your return at $7\frac{1}{2}$ per cent on \$4.00 per thousand sold and then on \$5.00 per thousand sold at the same rate?

A. I would have to see the letter first. It was a letter that the Mayor asked of me in a confidential capacity which I wrote to him as a general guide, general idea of about what was right.

Q. You arrived there in that letter at a conclusion of $89\frac{1}{2}$ cents for 18 candle power gas?

A. Coal gas.

Q. 18 candle power gas?

A. Coal gas I told you.

Q. I know, but I ask you about the candle power?

A. Yes, sir.

Q. You arrived at that conclusion for 18 candle power gas and not 22?

Objected to as irrelevant and immaterial.

A. 18 candle power coal gas.

Q. And not 22 candle power gas?

A. No.

Q. Now you say on page 76 in your report this, at the bottom totals rejected claims for rate appraisements and all duplications in full of apparatus. What are the duplications in value of apparatus that are referred to?

A. Line pot drips, valves in street steam and street railway crossings, that is what I would call duplicated apparatus.

Q. Now on page 84 you have five years' operations with deductions of \$16,746.88 and some additions. Did you make up this table?

A. That is a very general question. I did the computation and put it together, receiving the data from the city accountants.

2662 Q. That is they gave you the total operating?

A. Gave me the total operating expenses for five years from the company's books and they submitted for my approval the following items accident and damages occurring in 1893, replacement value, salary, time and expenses of engineers, draughtsman and others on inventory, interest on floating debt and interest received on bank bonds.

Q. As to this item \$3,685.17 accident and damages 1893, that is an expense that was incurred on account of some personal injury that occurred in 1893?

A. Yes, sir.

Q. Was that 1893 or 1903. Thirteen years looks a long time for it to be running?

A. 1893 as I recall it, I might be mistaken.

Q. You think that because of the time it ought to be charged to the year when it occurred?

A. Well it looked a long ways off to appear in 1910.

Q. When was it paid as a matter of fact? This is five years of course to 1910 was talking about here?

A. Well 1905 you know.

Q. When was the payment made as a matter of fact.

A. I was told that the accident occurred in 1893 when the payment was made, I don't know.

Q. Now then were you told there are pending now claims for \$150,000 of this same character that have arisen since 1906 and have not been paid and on account of which nothing has been added in the operating?

A. No.

Q. Did you make any inquiry to see what adjustment ought to be made in the company's favor if you were to adopt the time
2663 the accident occurred instead of the time when payment was made as the proper time to make the charge to your operating?

Q. No.

Q. Didn't it occur to you that it would be necessary to adjust both ways to get a fair result?

A. It is about this way that within five years of the time any of these claims for damages come up, anything of that sort on the average you get—one reason for taking five years you get the average or sort of cycle of the concern particularly in a coal gas works. You get a cycle of the repairs and average of five years, the first time I ever heard it brought up, would be likely to bring out any expense unless something extraordinary occurred and any damages paid.

Q. That don't answer my question, what I want to know is

whether it would not be proper in your judgment if you are going to strike out of this account the payments made on account of accidents that occurred prior to your period to add something to this account for the expenses that occurred and where suits are now pending and where the expenses have to be taken care of as of this period on your theory.

A. No, I think not, I think five years is long enough to let the thing run, close it out both ways, front and back.

COURT: This goes back seventeen years?

A. That was the statement made to me by the city's accountant?

Q. I want to turn over to some of the other computations with reference to increases of sales of gas with decrease in price. Beginning page 91 of your report they are all predicated upon conditions in Massachusetts are they not?

A. Yes, sir.

Q. Now with reference to this matter or question you testified to this in the New York case didn't you, it is not possible for a mere accountant familiar only with figures and unfamiliar with the practical process of gas making to authoritatively determine the distribution of vouchers and accounts now assume these vouchers to have been properly distributed to determine the proper account which should go to operating cost and which should go to capital or investment accounts. You testified to that in the New York case?

A. I did.

Q. In all of these questions of account you have taken the figures of somebody else haven't you, the computations of somebody else?

A. I accepted no one's figures unreservedly without careful scrutiny on my own part.

Q. You give over here on page 83 the operating costs for five years. Now did you check those with the books?

A. It was quite an impossibility, but I went over them most carefully and checked them with each other and asked a great many questions in regard to some of them before I was satisfied to accept them.

Q. The accountants made these figures and analyzed these accounts and gave them to you didn't they?

A. Mr. James Hall was one who did. And is most exceptional accountant in his ability and experience.

Q. What experience had he had in a practical point of view in gas making?

A. He had a very long one in the consolidated gas suit in New York City, a practical discussion of their accounts in all shapes and forms.

Q. I was asking about gas making?

2665 A. He has nothing to do except with the accountant and there he was with the engineers of the city day in and day out and weeks at a time.

Q. Now referring to this first table on page 91 here the populations are populations shown in the census of 1910?

A. Yes, as given by the Massachusetts Gas & Electric Light Commission.

Q. And have you the 1910 report of the Commission with you here?

A. Not in this room. I have at my room.

Q. I notice here in the 80 cent gas in the first table that the per capita sales in Boston are 6,190 in these figures and in Worcester, 4,340 with the same price, the difference in Boston being at least I think 45 per cent higher than Worcester. If there were any fixed rule, how do you account for the fact that in one of these cities at the same price the per capita sales are 40 or 50 per cent more than the others?

A. When a city reaches about 75,000 inhabitants it changes from an ordinary town into a metropolitan city. That change is not at exactly 75,000, it is somewhere in that neighborhood the inner life changes, the theaters, very large buildings, places of amusement, parks, everything of that sort restaurants, saloons, the night life increases after you reach 75 in any city and you will see it right here, the value of real estate and buildings, everything going up on account of that sort of thing after you pass 75,000. I have been employed a great deal in Worcester, Massachusetts, so I happen to know, a mere accident, why Worcester does not have the amount of use of their gas or electricity that Boston does per capita. Worcester is very unfortunate in one respect it is within about an hour's easy ride of the city of Boston and the consequence is that excepting the very commonest kind of cheap theaters, every body that wants to go to a theater goes to the city of Boston where there is a lot of good ones. There are no theaters that amount to anything in Worcester. It is equally true of the restaurants, anybody feels inclined to indulge his appetite of an evening hops on these trains which are continually going, steam trains in cold weather or trolleys in warm and goes into Boston and the consequence is that a great deal of the demand for gas, the demand for electricity, the demand that is greatest perhaps, where the most dissipation it is deserted almost altogether in Worcester and is in Boston, Boston in other words sucking the extra cash and the life out of Worcester.

COURT: I suppose Boston being the Athens of America would be burning more gas than others.

A. Boston does burn a great deal more than Worcester and burns a great deal more electricity.

Q. To get back to the question the fact that at the same rate there is a per capita of consumption in Boston of 6,190 as against a per capita consumption in Worcester of 4,340 would indicate that there is no hard or fast rule which makes the per capita consumption dependent on the rate at which the gas is sold wouldn't it?

A. I have been most careful to so state.

Q. For instance the per capita consumption in Lynn, where the rate is lower than in Boston is less than in Boston where the rate is higher?

A. It is in the same unfortunate position Worcester is, anybody that has any money to waste goes to Boston to do it in the evening.

Q. Now will you turn to the next table here and turning 2667 to the report for 1910, give us the population served in east Boston?

A. It is given here 40,940.

Q. That is an error isn't it?

A. May be.

Q. Well you look at the report and see? The population in each instance is the population served is it not?

A. Yes, sir. I see there is put in here which seems to be right, 90,940 instead of 40,940. I will foot that up and see whether a typographical error or original error.

Q. All right foot it up and see.

A. There is an error of 50,000 there.

Q. Now will you look at Springfield and tell us what the population served in 1910 was in Springfield, see if there was not an error there of 20,000 or something like that?

A. In the case of Springfield the additional population served is Agawa, 3,501, West Springfield, 9,224, Long Meadow, 1,084 and Ludlow, 4,948.

Q. So that the figures for Springfield for population in 1910 should be 107,683 instead of 88,926 should they not?

A. Yes, sir.

Q. Both of those errors would tend to reduce their per capita consumption would they not?

A. Somewhat, not very much. It would not alter the principle involved at all.

Q. I want to see if there is not another error there that would be in your favor. I wish you would give us the sales in thousand- of cubic feet in Lowell in 1910. You have it there 376,672, see if that is right. Isn't that about 200 *hundred* million too low?

A. Gas sold by meter in the year ending June 30, 1910, 2668 554,828,500 and gas for public lighting, 181,844,200.

Q. You are about 200 *hundred* million too low are you not?

A. Just about.

Q. So that in order to get the correct average sales per capita we should add about 70,000 to our divisor and about 200 million to our dividend?

A. I can figure that if you like.

Q. All right; figure it and see if it is about 4,023?

A. Is it worth while. This is simply a generalization showing there is an increase in the sales—

Q. I don't care to have you compute it unless you wish to. I wish though you would go over the table there for Lowell and see if they are right.

A. Total sales in thousands of cubic feet 573,678. I have 373,672.

Q. I want to know whether 573,678 is correct?

A. It appears so should be 573,673.

Q. Well you come within 5000 cubic feet?

A. Are you sure that is not a typographical error?

Q. Yes, we are, you can check it.

A. It makes no difference whatever in what I am trying to show you and that is the constant increase on sales per capita as the price goes down.

Q. Turning to the next table, what the population of Revere served in 1910, I wish you would look at the report and see whether you are right there with 18,219?

A. The Suburban Gas & Electric Light Company of Revere and Winthrop 18,290 and 10,132.

Q. You left out the 10,132 didn't you?

A. Yes, sir.

Q. So that your population served was instead of 18,219, 2669 should be 28,351?

A. Something like that.

Q. Now Taunton, you have 34,290, is that correct?

A. The town of Dighton given here 2,235 and Taunton, 34,259.

Q. That ought to be 36,494 instead of 34,259.

A. Yes, sir.

Q. That would reduce your sales per capita there?

A. Very slightly, make no particular difference in what I am trying to show.

Q. Reduce them from 4,007 to 3,844?

A. Something of that sort.

Q. In the last table on that page there is a slight error or difference of about 8000 in population?

A. Any others?

Q. Not on that page. I think also you will find in your next table the population served in 1910 by Webster given a little incorrectly, but the difference is very small. Now turning to the last column on that page you have population served at Stoneham 7090 in 1910, will you look at the report and tell us what it actually was?

A. Population of Stoneham 7090, also of Reading is 5,818.

Q. About 5000 short there in the population?

A. Yes, 5,818.

Q. Your sales there for Gardner are off about a million cubic feet aren't they? You have 7,298,000. That is about a million feet too low isn't it or a little more?

A. Given here as 8,331,000.

Q. That would reduce your average sales per capita there about 10 per cent wouldn't it?

A. That would only exaggerate still further what I wish 2670 to show.

Q. Now turn to the next table here. In the first place you begin with price \$2.25 per thousand in 1901, is that right?

A. Price \$2.25 sales per capita 1901.

Q. Now the next you have sales where the price per thousand is \$2.00.

A. Yes, sir.

Q. That is all the cities in Massachusetts that charge the \$2.00 rate you have averaged in your first column under 1901?

A. Yes, sir. You must recollect one thing you know this is all rough work because when I say \$2.00 I don't mean exactly \$2.00 but I mean within 12½ cents either way.

Q. It appears to be rough work, my computation shows each of these figures in this table are wrong. Not one of these sales per capita is correct. But we will come to that later.

A. There is no very great pains taken with them I will be frank about that.

Q. I am confident of that because I don't see how pains could have resulted in so many errors. Now what I want to get at is this, you took all of the cities which in 1901 were selling \$2.00 gas in Massachusetts as shown by the report for 1910 and got the average sales per capita?

A. Yes, sir.

Q. Then took all of the cities which in 1907 were selling at \$2.00 for gas and got the average sales per capita?

A. Within 12½ cents either way.

Q. Now then what I want to get at is this whether the cities in 1907 were the same as the cities in 1901? That is take this column \$2.00 that runs across the page you have 1901, 584, 1907, 722, 1910, 614. Now is that average for the same cities?

A. No, of course not, applied to the price of gas in all 2671 cities.

Q. So that don't show the price of gas in any city or class of cities or increase in the sales of gas in any city or class of cities?

A. Oh yes; this shows in the class of cities giving \$2.00 gas in rough way.

Q. In the same way in regard to \$1.75 cent gas, were any of the cities which were selling at \$1.75 in 1901, selling it at \$1.75 in 1907?

A. I could not tell that without referring back.

Q. Have you your memorandum from which you made up this computation so you can give us the cities?

A. I can't give the cities for 1901 or 1907 because that memorandum is in the form of a paper which was published and the details were not gone into. They are in the same rapid way in which I sketched it 1910.

Q. Can you say that any city under the \$1.75 price in 1907 is included in the same price in 1901, or cities of the same price in 1910?

A. I didn't look at it from that point of view, didn't go into it. I was simply classifying sales of gas at so much per thousand as near as I could get at it in that rough way.

Q. So what this table means as a matter of fact is that certain cities at the \$1.75 price in 1901 had average sales of 843 and certain other cities at that price in 1907 had average sales of 898 and that certain other cities at that price in 1910 had average sales of 988.

Q. And there is no comparison of any city to show what the growth has been in that city as prices have gone down?

A. Yes, a very careful comparison in the case of the city of Des Moines. I am talking now about Massachusetts.

A. No, I didn't regard that as important at all.

2672 Q. Now as a matter of fact that 283 there should be 339 shouldn't it?

A. I really couldn't tell you. I told you I didn't even know the cities that are in it.

Q. 584 should be 589 shouldn't it?

A. For 1901?

Q. Yes.

A. No, I think that is about right.

Q. And the 845 for 1901 should be 626 shouldn't it?

A. I think that is all worked out very carefully somewhere.

Q. But where?

A. As I told you it was worked out in 1902 along about that time it is so far back it is out of the question—it was worked out just as I have just explained, worked out not regarded as giving a quantitative matter but simply showing the tendency and results of lowering prices of gas invariably showing an increase although often a very irregular one.

Q. Is there any way by which you can tell us what cities are included in the 225 rate for 1901?

A. None except going back and getting hold of the volume for 1901 and that I have not with me.

Q. Now will you *that* if you take the cities for 1901 having the price you state as shown by the report of the Massachusetts commission that any figure in that 1901 column would be right?

A. I think for your purpose they are all right. They show universally as the price of gas goes down that the consumption of gas goes up, that was all that I wished to show.

Q. Did you take any one city and run that through with it?

A. In 1901?

Q. From 1901 on?

2673 A. No. Except Des Moines.

Q. Now there is another thing that they do isn't there in Massachusetts that has some bearing on this. They maintain a constant population for five years in their reports taking the census and maintaining the population constant for five years and then jumping to the next census?

A. Well I don't know.

Q. Isn't that — they do?

A. I don't know how they do there. I never thought of it. I am perfectly willing to accept their facts.

Q. Haven't you carefully studied these reports?

A. In regard to that?

Q. In regard to the whole situation?

A. Massachusetts reports in regard to development of gas if I thought I could get an accurate rule out of that I would take no end of trouble.

Q. You have got an equation in there?

A. Got an equation in but you will find the equation for 1901 is

entirely different from the one for 1907. There is no use pretending to an accuracy that you cannot reach.

Q. Getting back as a matter of fact, do you know how they treat this population matter in reports whether they attempt to give the actual population or whether they adopt the census and carry it until the state census and then carried that until another federal census in five years?

A. I could not say.

Q. Of course if they do that is there is any increase in your population your per capita consumption is too high four years out of five isn't it?

A. Well yes if they only make a hop once in five years 2674 the gas would probably roll along up per thousand for a lower population than real. But these Massachusetts cities are slow of growth and very thrifty and the commission knows what they are about if they don't change the population.

Q. Well take one of them here, Lawrence, I see that in 1901 the population was 81,127. That population was used continuously for 2, 3, 4 and in 1905 it jumped to 89,972. That was used continuously to 1910. 1910 it jumped to 110,170. That is an increase for the ten years of 25 per cent roughly?

A. Two and one half per cent per annum.

Q. Is that a fair average increase in population for ten years?

A. I should say it is very unusual for Massachusetts.

Q. Well I notice that in the same period Cambridge jumped from 162,152 to 158,924 also just about 25 per cent. Does that look right to you?

A. That is a college town you know, it is different as far as gross is concerned and the manufacturing towns are the towns that generally burn the most gas and most electricity.

Q. Suppose you should take one town like Lawrence and run that down for ten years and get your reductions in prices and your increases in consumption, would you say that would be as good a test as good a criterion of the affect of the reduction of price as would be comparing Lowell at Lowell in 1901, and Cambridge in 1907 and Worcester in 1910?

A. If you are seeking what I sought in the Massachusetts discussion a generalization directly stated and was not to be quantitative but simply showing the general tentative or law it would be the greatest mistake in the world to take up an individual city with the idea of proving anything of that sort. Nothing but these averages that you have will show the two ways in which gas

2675 seems to increase per capita. One is by the steady growth which you notice has occurred in the Massachusetts cities, occurred very irregularly without any change in price, but still occurring all the time as the price gets lower the growth without change in price seems to grow stronger, and the other is the growth in the sales per capita due to the reduction of price and to pick out any one city whatever it might be you are liable to go either way and do an injustice in making comparisons with it.

Q. What city in Massachusetts is most nearly like Des Moines in its population and conditions as far as gas sales are concerned.

A. I can't answer that question at all. They are thrifty people in Massachusetts and not the same conditions, not liable or not willing to spend as much for gas, their towns do not change as rapidly, not as many new buildings going up and the consequence is there is not as much gas put in as there would be in a town of smaller population in Iowa where the constant change is going on and the growth going on.

Q. So that the situation in Massachusetts is not analogous to the situation in Iowa.

A. No. Just as you would not expect a Massachusetts man to do business the way an Iowa man would.

Q. Will you check up this first table on page 94 and if you can find any figure in it that is exactly correct will you point it out to us, between now and the next hearing?

A. I don't think there is any attempt made, there could not be any attempt made where one took a range of 25 per cent or 12½ cents either way from a certain given price to obtain accuracy in the matter to have attempted to have obtained accuracy in this
2676 matter would have filled a report bigger than the whole of the report I turned in.

Q. So you don't pretend it is accurate?

A. I have stated so at the outset and at the end, and approximation, it is only a rude approximation showing the growth of gas on reduction of prices.

Q. You have a table headed study of increase per capita for dollar gas showing an increase of 179 feet. Are you willing to say that may be 131 feet if computed accurately on the basis of what precedes?

A. Might be a hundred or might be 200 but it agrees with the main thing to be proved.

Q. Now in the same cities the sales per capita are ascertained by dividing the gross sales of the year by the population?

A. Yes, sir.

Q. Consequently your sales per capita do not indicate that each individual consumer is taking more gas. You may double your number of consumers may you not?

A. The sales per capita makes no mention of the sales per meter and purposely makes no mention of sales per meter. It is intended to show that a community as a whole and on the average their attitude towards the gas company. Their desire to use gas regardless of whether it is done through a thousand or ten thousand or twenty thousand meters.

Q. Then your figures here would not show whether the individual consumer was using any more gas or not and you could not tell that without going further than you have gone and taking the number of consumers.

A. Correct.

Q. Consequently your increase here would not afford the
2677 basis for any inference as whether or not to obtain this additional consumption aj additional investment had been made necessary?

A. In services and meters you mean?

Q. In services and meters and in mains and in manufacturing plant.

A. In a general way, no.

Q. Now have you ever taken any of these Massachusetts cities and run through a period of ten years to see whether your theory is right that people spend about so much for gas or whether this additional consumption per capita was due to the increased number of consumers with an increased investment?

A. I never have carried my work into such detail as that.

Q. Don't think that would be a very material factor if we are to use this for the purpose of determining whether the Des Moines Gas Co. can be held here to furnish ten per cent more gas without any additional investment in the plant?

A. No, I don't think that a matter of importance.

Q. You assumed that in the first year the Des Moines Gas Company would sell 600 million cubic feet at the 90 cent rate didn't you?

A. No, I said when it got to the 600 million cubic feet. I didn't say when it was.

Q. Did you not say this at the bottom of page 95, the statement has heretofore been made that the safe capacity of the existing works of the Des Moines Gas Co. is about three million cubic feet per day or say 600 million or more cubic feet per year. Its sales 1910 amounting to 528,375 thousand cubic feet it is reasonable to assume that the price of gas at the rate of 90 cents per the ordinance of December 7, 1910, 600 million cubic feet annual sales, the works capacity will be reached. You say that don't you?

2678 A. Yes, sir.

Q. Then you say following this it is obvious that the only increase required to reach its capacity will be in the oil, coal and coke for fuel and the purifying material in general all the other conditions of operation will remain as they are today.

A. Yes, sir.

Q. Was that in contemplation of obtaining 600 million some time in the next ten years or in the first year?

A. Oh I would not be the least bit surprised to hear you were doing that right today, 600 million.

Q. I didn't ask you that, I asked you what assumption was this statement made?

A. Well within some reasonable time, a year or so you would get along to it.

Q. How soon did you say, a year or so?

A. Yes, a year or more.

Q. How much more?

A. Well I don't know.

Q. Isn't it important to know?

A. Well you never should prophesy unless you know. I think the books would show if you have gotten to it already. You ought to.

Q. Now you say following this that the sales would run up to 600

million. Now passing that what do you figure per capita sales would be when we get to 600 million?

A. Of course it would be 600 *hundred* million divided by whatever population it is you sell to.

Q. Well how soon is that going to happen?

A. I just declined to state that definitely, gave it to you as my opinion that if it has not happened already it will happen—
2679 I would not be at all surprised if it happened already.

Q. Do you say it has happened already?

A. I would not be at all surprised if it had happened already.

Q. If it has happened already it will give us in the actual case a very fair check on your accuracy of 25 cents per thousand here will it not?

A. No, not if you jump your accounts in the way you did in 1910.

Q. You refer to the two items of \$15,000 that make a difference of three cents?

A. No, to the increase all along the line everywhere, run down these five years or four, run along pretty smooth and get to 1910 they jump right up every one of them, big increases in all the different forms of repairs and operating expenses.

Q. Well let's get back to that for a minute and have you point some of them out. In 1908 the cost per thousand was 64.0—

A. Will you pardon me if I refer to what I was speaking of?

Q. I beg your pardon but I only refer to the exhibits showing the actual book cost. Will you take this Exhibit 24 and take the cost per thousand for the two months ending February 28, 1906 and what was it. You were talking about the way we have jumped things, these amounts are the book items, this is what our books show.

A. Will you allow me to call your attention to another thing in Exhibit 24?

Q. I prefer you answer the question.

A. Will you allow me to complete the answer to the original question.

Q. I prefer to have you answer my question.

Mr. BRENNAN: I would like to have him answer the question in the way in which he thinks he can answer.

2680 Q. The question is referring to Exhibit 24, what does it show the cost per thousand to be for the two months ending February 28, 1906 I think you can answer that very easily from the exhibit.

A. I was speaking more particularly in the accounts there in the way in which they increase, not 24.

Q. I know but I am asking the question now answer it if you please.

A. You cut me off on the way I wanted to answer the question, the one you asked me by switching in another question before I answered.

Q. Please answer the question. What does the cost appear there for two months ending February 1906 of gas per thousand, as shown by Exhibit 24?

A. This is complainant's Exhibit 24 and there is for the two months ending February 28, 1906, there is given total operating expenditures, 74.15 per M sold.

Q. It is cost per M made?

A. No, if you go down a little below that you will find per M cubic feet sold.

Q. Now if you will go over to the year 1910 and give us same cost including the two disputed items amounting to about \$15,000 or about 3 cents per thousand, that is the 12 months ending December 31, 1910?

A. It is shown on this account as being 66.47 cents, but it is absolutely unfair and incorrect as a means of comparison. Two months being compared with a year.

Q. Now will you take the cost per M for the twelve months ending February 28, 1907, as shown by this same Exhibit and what are they?

A. The total operating expenses in that twelve months give 65.81 per thousand cubic feet sold.

2681 Q. And for the next twelve months is what?

A. For the twelve months ending February 29, 1908, the total operating expenditures give 64.1 per thousand cubic feet sold.

Q. And twelve months ending February 28, 1909?

A. The total operating expenditures 59.69 per thousand cubic feet sold.

Q. And for the next ten months period?

A. The ten months ending December 31, 1909, gives 62.56 cents as the total operating expenditures per thousand cubic feet sold.

Q. Now this 1910, 66.47 less the three cents, 66.47 is at least as low as the average for this five — period isn't it?

A. It looks that way.

Q. Ans that is the expense as it jumped up in 1910.

A. Will you allow me to answer your question now?

Mr. BRENNAN: Go ahead and answer it yes.

A. That is not the expenses to which I referred and the jumping, it is this, the repairs to works for 1907 were, 9,699.99.

Q. What page are you reading from?

A. Pages 79. For 1909 the repairs to works was \$6,825.23; 1909, 5,996.71; and for 1910, where the jump occurs \$14,193.75. Again the repairs to mains for 1907, \$2,838.28, 1908, \$4,420.78, 1909, \$3,166.75; 1910, \$9,347.30, again a jump. Repairs to services 1907, \$469.22; 1908, \$504.92; 1909, \$910.41, 1910, 5,224.76. Repairs to meters 1907, \$2,392.77; 1908, 3,443.85, 1909, 4,772.99; 1910, \$5,211.63. In every case a very great jump except in the case of meters.

Q. Now you say in your report this, the Des Moines Gas Co. presents the following record of repairs covering a period of four years and giving yearly averages which probably are not as accurate as might be derived at a longer period. What does the last
2682 part of the statement mean that you thought that taking these averages and these jumps, does it mean in your judg-

ment the charges are excessive or not, or the charges probably are not as great as might be derived at a longer period.

A. I presume it was my intention to say that they are not as great as they would be if continued for a longer period.

Q. That is if you have taken your average over a longer period instead of this five years?

A. No, I have taken four years, if I would go on for 1911, what I mean to say?

Q. You wanted to insinuate in 1911 there would be something wrong?

A. No, keep on going up.

Q. Did you make any effort to ascertain what causes this increase in repairs to mains for instance?

A. Yes, sir.

Q. Did you learn that the repairs to the mains and to the services increase in 1910 because the city had changed the grade on a good many streets such as east 6th street, east Des Moines street, east Locust street, east Second street and many others involving the company in the unusual expense in lowering or raising mains and services.

A. That didn't interest me so much as repairs to works, \$14,193.

Q. That don't answer my question.

(Question read).

A. Only in a general way was a reference made to the matter, no specific reference to streets or anything of that sort.

Q. You didn't take the trouble to find out what in fact caused this increase?

A. I asked about it.

Q. You didn't follow it up so you found out?

A. Gave instructions to find out about it, no I did not.

2683 Q. You might follow it up on the books?

A. No, I didn't follow it up on the books.

Q. Did the accountants follow it up on the books?

A. Well I don't know how far they followed it up. I made but very slight inquiry *anything* about the matter.

Q. You just condemned it without knowing what caused it?

A. I made no condemnation, I noted the fact expenses jumped up. Might possibly be your error was the other way, you made up on repairs in the business, I have not passed any opinion on it.

Q. Then if I understand you correctly you do not want to be understood as criticising these amounts as improper amounts under the circumstances?

A. No further than as shown and comparative inconsistency of the management.

Q. Well would you say that it showed inconsistency of the management to charge into the operating expenses of 1910, the extraordinary amounts which on account of the action of the city in changing grades it had been necessary to extend on the mains and services?

A. I have called your attention to it, I rather decline to express an opinion at all until I had investigated it very thoroughly.

Q. And that also would be necessary with reference to these other

things, take repairs works, do you know what items make these increases in 1910 in repairs works?

A. No, sir.

Q. Until you do you could not very intelligently either approve or condemn them could you?

A. That is the way I look at it.

Q. The same thing is true all the way through isn't it?

2684 A. All the way through. My point is the sudden jump.

Q. And with this sudden jump here there must have been an economy somewhere else to keep the average down where it was in 1910?

A. Average per thousand, good showing.

Q. Good showing isn't it?

A. Good showing, yes; no getting away from that.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

2685

Tuesday Forenoon Session.

AUGUST 22, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

WILLIAM D. MARKS, continuing his cross examination, examined by Mr. Guernsey, testified:

Q. Now, yesterday I was asking you about this proposed 600 million, I asked you when we were to assume that that amount of output had been attained, or that amount of sales had been attained, and as I understood you, you couldn't fix any definite time. How in your direct examination on that question the assumption was that this volume of sales would be obtained in a year, was it not?

A. In about a year from the time of change of price.

Q. So that is the assumption upon which you gave your testimony and made your estimate, is it not?

A. No.

Q. Well, now, let me read the question, page 2348 of your direct examination: "Now assume that at the end of the year, we will say one year after the ordinance was in force, the one in controversy, that the sales of gas would amount to say 600 million, about what would be the rate of return based upon your valuation in this case?"

A. About ten per cent with gas at 90 cents." Was your answer there based upon the assumption there in the question that this volume of business would be attained in one year and is your computation in your report based upon that assumption?

A. First of all, to go from 550 million to 600 million means an increase of about ten per cent in the sales. Looking at 2686 the exhibit of this complainant, shown on page 88, I observe—

Q. You mean page 88 of your report?

A. Yes, page 88, I observe that the increase going from \$1.10 to \$1 was given as being about 15 per cent and then sticking at the

price of \$1 for the years 1906, '07, '08, '09 and '10, the increase became slower and slower until it was only 7 per cent per annum. Now it appeared to me, judging from analogy, and of course you understand that this is rough work shown here—

Q. I concede that—

A. Shown here in this column of your exhibit that at the best can only be an approximation, but it seemed fair to assume that about ten per cent would accompany the reduction of the price of ten cents somewhere within the neighborhood of a year after that reduction had been made. I understand, however, that the fact of the matter is that you have gone on increasing your sales—this is merely a passing remark—which leads me to believe that you are very close to the 600 million already.

Q. To get back to the question—then your testimony and your report are based on the assumption that the sales of 600 million will be acquired in a year?

A. They are not.

Q. They are not?

A. No; there is no such exactitude possible.

Q. Are the based on the acquisition of that amount or volume of business within any specific time?

A. Within a reasonable time, one year perhaps, perhaps a little more, perhaps a little less from the time you go to 90 cents.

Q. Approximately a year?

2687 A. You may put it that way, but approximately is a little close.

Q. Now to go back a little—you said when we decrease the rate from \$1.10 to a \$1. we jump 14 cents, or 15 per cent. Now if you will look at the table you will see that in the first year after the dollar rate went into effect, our increase was 11.3 per cent?

A. 11.3—I see in the second year it was 15 per cent; that only verifies what I was trying to tell you.

Q. 11.3 per cent the first year?

A. Yes.

Q. And that increase was less than the increase in any one of the five preceding years, was it not?

A. No, I see you have 9.2 per cent there—

Q. I know, did you count right—that is the sixth preceding year, isn't it?

A. I will see.

Q. Just count it up? Starting with 1905, '04, '03, '02, '01—

A. Do you count that in?

Q. That is the sixth preceding year.

A. But the \$1.10 is the preceding year; this takes in five preceding years.

Q. My question was the years that preceded the reduction; now the reduction was January 1, 1906, and the increase in the year in which the reduction occurred was less than the increase in any one of the five preceding years, was it not?

A. Slightly less than some of them.

Q. Well slightly—one of the five preceding year- was 28.4?

A. Yes and one was 13.

Q. But the average was nearly double this 11.3 per cent, wasn't it?

A. I haven't figured it up.

2688 Q. I haven't either, but just looking at the figures I would say it was.

A. It is all right to say double in work like this anyhow.

Q. Now, then, this statement is rather interesting—let us go back a little. Have you taken this statement, take for instance that 15.4 per cent in 1907; have you looked through the expense, the operating expense to see whether an abnormal amount was spent to extend the business at that time?

A. I have not. I have had a very limited time, indeed, in which to go over these matters.

Q. It would be necessary to do that before you could ascribe this to a mere decrease in the price—isn't it possible to extend the gas business as any other business?

A. You can create a precocious growth in the gas business by the methods you are using here. I don't say that in the way of criticism at all, but rather in the way of commendation, and it has been done evidently.

Q. So that is would not be safe to take these figures alone to draw conclusions from?

A. Not at all if you try to draw exact conclusions.

Q. Now, then if you increase this per capita to 600 million, this volume of sales to 600 million within two years, what would our sales per capita be, say when the population is 87,000—86,000 plus by the last census of 1910?

A. 87,000 is what I would take, is it?

Q. Yes, I call it 87,000 instead of 86,000; I want to emulate you and give you the benefit of the doubt.

A. It would be near enough to call it sixty-nine hundred.

Q. Yes. What are the sales per capita now, do you know, in Des Moines?

2689 A. I was told about six thousand, in that neighborhood, so closely there was no difference.

Q. Do you know of any city in the United States at 90 cent gas that has sales per capita of 6900?

A. Certainly no New England city; I haven't looked that matter up.

Q. Wouldn't that be a very material factor in determining what the future of this proposition was going to be here?

A. Not in a rapidly building community like that of Des Moines; not in one that is always putting up new houses and small houses too.

Q. Now, I have a list of some of the cities here—Baltimore, with a population of 600,000—a very much larger place than Des Moines, with 90 cent gas, and sales per capita of 4454?

A. Yes, I had occasion to look into Baltimore; I am not talking about the last year or two; up to that time it was just about the most poorly managed gas outfit in the United States.

Q. Take Providence has 225,000 population and the sales per capita are 4796, that is right?

A. As I stated to you, you will not find that in New England; they are not growing communities.

Q. Let us go to Denver then, a very prosperous and extravagant city, farther west than we are, and have a population of 213,381 with 90 cent gas and sales per capita of 5022.

A. I don't know the sales per capita; that would be about what I would expect of Denver.

Q. Let us take Richmond, Virginia, they have a population of 127,000 and sales per capita of 3406, at 90 cent gas.

A. There you get again in a community in which a large population is colored and as a natural consequence the per capita is not a fair criterion.

2690 Q. The- take Hartford, Conn., they have 90 cent gas and a population of 110,000, and the sales per capita 5047.

A. That is about right; you understand I distinctly except throughout New England.

Q. Didn't you take New England as the entire basis of your report for the computation you make?

A. Simply to show the growth of gas.

Q. It is not at all as a basis for what you anticipate in Des Moines?

A. Not at all; simply to show the general tendency.

Q. In Lowell we have 90 cent gas, and a population of 107,000, and the sales per capita 5128?

A. Lowell is one of the best New England cities.

Q. Now, then, going further west, Fort Wayne has a population of 75,000, 90 cent gas, and 3000 sales per capita?

A. That I don't know. I would have to go over that. I should think they ought to be better than that.

Q. Will you verify that for us?

A. Yes. What are the figures?

Q. Population of 75,000 and the sales per capita—

A. No the total sales please.

Q. I didn't give you the total sales, gas sales, they exclude the street lighting.

A. That would give you about 3000 per capita.

Q. And the rate is 90 cents?

A. Yes.

Q. Go a little further west to Peoria, with a population of 70,000 and sales per capita of 4381 at a rate of 90 cents.

A. Of course the only point is not what these towns are doing, but what the city of Des Moines is doing according to your books today.

2691 Q. I know, but I think there is something in your report about what you call satiation?

A. Yes, properly should be.

Q. I won't quarrel about definitions—that is a factor to be taken into account in determining what the possibilities are of developing and increasing the business.

A. At any given price it should be taken into account.

Q. And in determining whether or not that point would be reached you would naturally compare the consumption per capita here with the consumption per capita elsewhere, wouldn't you?

A. In the same rough way in which I used New England to show a general tendency; certainly not as an accurate quantitative method.

Q. Now take Terre Haute, Ind., that has a population of 65,000, and sales per capita of 3558 at 90 cent gas?

A. I will have to accept your statement; I haven't looked it up.

Q. Are you willing to accept it?

A. I said I would have to do so.

Q. I don't want you to do it under duress, but I would like to have you verify it?

A. I have no means to verify it. Of course I am taken by surprise by these announcements.

Q. It would be the natural thing to look up the per capita sales elsewhere if we wanted to form a conclusion of the per capita sales in Des Moines?

A. You might as well look up the general tendencies elsewhere.

Q. Do you know of any city where the conditions are like those in Des Moines that has as large per capita sales at either dollar gas or 90 cent gas, that Des Moines now has, if so, what is it?

A. I have not had opportunity or time to look it up.

2692 Q. So that you don't know then?

A. I can't recall any.

Q. Now, then, what is the increase in per capita sales in Des Moines been due to, has it been due to the fact that the consumers of gas have been using larger quantities, or to the fact that the number of consumers has relatively increased?

A. It has been due to a precocious growth of the business of this company, and that in turn has been due to the extraordinary care taken of your consumers, for I understand that the consumers of the city all feel that you are ready at all times to take care of their apparatus and of them.

Q. In other words, we give them good service?

A. Good service and with the amount of solicitation and advertising which has been done recently, that seems to have resulted alike in larger numbers of consumers in proportion to the population than usually happens in a town or city of this size, and also in the more generous use of the gas than usually happens in a community of this size.

Q. Now, I wish you would take Exhibit 36 and tell us what the population per meter is in Des Moines or was at the end of 1910?

A. Twelve months ended December 31, 1910, population per meter 4.5.

Q. Now, then, on the 31st day of December, 1905, when the last reduction in rates was made, what was the population per meter?

A. Twelve months ended December 31, 1905, population per meter, 5.84.

Q. So that during this period now, since the dollar rate has

been in effect, we have first to start with here in Des Moines, we have now one meter for every four and a half persons in the city, while when that rate went into effect, there were 5.84 persons for 2693 every meter here?

A. I would not be willing to accept it without going over the matter carefully.

Q. Assuming this is correct, that would indicate that the use of gas during that period had been materially extended, wouldn't it?

A. Yes.

Q. And that would tend to increase your sales per capita without reference to whether the persons who had been using the gas before used more or less?

A. If you take the number of meters and divide into the population of any town, you get of course, the number of people as it were, attached to each meter; but I don't say that you can infer from either of the figures 5.84 or 4.50 any more than that.

Q. Well, let me see, if I can make it clear to you. If in Des Moines, or some hypothetical city—we have not referred to a hypothetical city yet—there were a thousand people taking gas, each of them burning 5,000 feet a year, and the population of the city was 10,000, and then the next year 2,000 people took gas, each of them burning 5,000 feet a year, your per capita consumption would be doubled, wouldn't it?

A. The population remaining the same?

Q. A thousand consumers the first year burning 5,000 feet a piece, what would that per capita consumption be that year?

A. Of course, you have 5,000.

Q. You added five million, didn't you?

A. Yes.

Q. Divided by 10,000 would give you what?

A. Five hundred.

Q. Now, then, suppose the next year you had 2,000 people taking gas, each taking 5,000 a year?

2694 Question continued: That would double your consumption?

A. The population remaining the same?

Q. Yes.

A. That would be an increase.

Q. It would double it?

A. Yes.

Q. Well, now, then as you decrease the number of people per meter, you increase the number of consumers, don't you?

A. That assumes a constant population always.

Q. Wait a minute—if your population increases your number of consumers would increase more rapidly?

A. Yes.

Q. You only have assumed a constant population?

A. Yes, you started out with a constant population.

Q. Wouldn't the fact that the number of people per meter decreased indicate that relatively more people were taking gas?

A. Yes, not how much.

Q. It wouldn't indicate how many more, but if there was an increase in population, it would be greater than what appeared on the face of the returns greater than the line of difference between 5.84 and 4.50?

A. Yes.

Q. That would increase your per capita consumption without taking into account the amount consumed by each consumer?

A. I would have to take that specifically in each case; I wouldn't generalize in that way.

Q. Are you willing to say, that the tendency of the decrease, or the increase in the number of meters, that is, the decrease in the population per meter, are you unwilling to say that the tendency of that would be to increase your per capita consumption?

2695 A. Using the word tendency, nothing more than the word tendency. That statement appears to be correct, unless on further investigation it has been found that something has happened to cut down the use of gas per capita at the same time that the cut down of people attached to each meter occurred. You see you can't generalize without qualification in that case.

Q. Now let us study this a little more, because I think it is safer to stick to Des Moines. You notice in 1906 the decrease in the number of people per meter was only .05 and you remember looking at your table in 1906 the increase of sales was 11.3?

A. That is not my table; that is one furnished by the Gas Company.

Q. It is yours by adoption, isn't it—I won't quarrel with you about that; it is the table set out on page 88 of your report.

A. Taking the year 1905 to 1906?

Q. No, the year 1906.

A. The year ending December 31, 1906.

Q. That is the first year of this dollar rate?

A. There is an increase of 11 per cent.

Q. Now, then, if you go to 1907, you get an increase, referring again to the table set out at page 88 of your report, of 15.4 per cent?

A. Apparently.

Q. You will find that your number of persons, your population per meter has dropped some instead of one half of one per cent, has dropped .44, don't you—so that there has been a radical increase in the number of consumers; that is, it dropped from 5.79 in 1906, and 5.35 1907?

A. .44 per meter.

Q. Instead of 1905?

A. Yes.

2696 Q. You observe that?

A. It appears in that way here.

Q. Now, I understood you to testify on your direct examination that the revenue remained just about the same, the revenue per meter shown on this table for the last year in which the dollar ten rate was in force and was 28.50, wasn't it?

A. Referring to the year—

Q. The last year in which the \$1.10 rate was in force, 1905?

A. The revenue per meter 28.50.

Q. The next year it is 26.83?

A. It is so given.

Q. The next year it is 27.78?

A. Yes.

Q. The next year it is 28.15?

A. Yes.

Q. The next year it is 22.20?

A. For ten months, yes.

Q. And the next year it is 27.33?

A. Yes—wait a minute; there seems to be 4.54 here.

Q. That is for the two month period. So that the revenue per meter has not in any way got back to where it was at the \$1.10 rate, has it?

A. Not according to those figures, if you wish to be very exact.

Q. All we wish to be is right.

A. Yes.

Q. So far as you know this table is right?

A. Yes.

Q. Now, then let us turn to the sales per meter, and see whether they jump up amazingly at the \$1.10 rate; the sales per meter were 25843?

2697 A. You mean the year 1905?

Q. Yes.

A. Yes, 25843.

Q. For the next full year it is 26680?

A. Yes.

Q. An increase of about five per cent?

A. Yes, that is 12 month ending February 28, 1907.

Q. So that the increase in the sales per meter is about 5 per cent, and the increase of gross sales according to the table in your report on page 88 was 11.3 per cent.

A. So it appears; you speak of it as my table, it is your own table.

Q. I beg your pardon; I was very careful to avoid hurting your feelings; I referred to the table set out at page 88 of your report.

A. I thank you.

Q. So it won't do to say that this increase was due to an increase of consumption by the people taking gas at the time the price was decreased, will it—now referring to Des Moines and not Massachusetts?

A. It will appear from the figures that you have given here that for the year ending December 31, 1905, the sales per meter were 25843, and then the sales per meter go on increasing in an uneven sort of way and at the end of December 31, 1910, to 26995 or in round figures about 27000; so that it would appear from this table as if the sales per meter had appreciably increased as a result of the lowering of the price.

Q. Now, Mr. Douthirt just made for me a short computation. We find that the increase in the sales per meter in the first full year given after 1905 is about three per cent and the increase in sales is about 11 per cent.

2698 A. Do you mean the year ending February 28, 1907?

Q. Yes; I am again giving you a little the better of it, following your example; you will see in the year 1907 the increase was 15.4 as against 11.4 in 1906?

A. Comparing the two tables with the increase of sales per meter does not follow on as rapidly as the increase of sales.

Q. The increase of sales per meter is about three per cent for that year, while the increase of the total sale is 11.3 per cent, and the conclusion that I want you to deduce from that is that the increase in the sales during that period was due more to the increase of a number of consumers than it was to the increase in the gas consumed by the persons connected.

A. You mean the increase of the number of meters got right down to it and jumped the consumers.

Q. Well, I'll substitute that.

A. That of course happens right along; the increase occurs in two ways; there are more meters, more sales per meter, but the increase in services and meters just about picks up the average depreciation that is going on; so that the depreciation money comes right in.

Q. Now, then, in that year you figure an increase of say 10 per cent for one year on account of the decreased price, haven't you?

A. First of all, I haven't figured a year.

Q. I withdraw that question. I want to ask you another question.

Q. Now the sales for the twelve month- ending December 31, 1905, were 25843 per meter, weren't they, as shown by this Exhibit 36?

A. Yes.

Q. And the sales for the five years after that, the year ending December 21, 1910, were 26955?

A. Yes.

2699 Q. Now, the difference is 1112, isn't it, and that is what per cent of increase in five years in the sales per meter—4.3 per cent, isn't that right?

A. About 4 per cent.

Q. So that the increase in sales in five years, due to increase in consumption is something like four per cent as shown by these figures?

A. You can't increase the sales per meter.

Q. Yes. Now, then, during that same period I find referring to the table set out in your report on page 88, that the gross sales increased from 334,404,640 to 531,991,054 cubic feet, and I find also during the same period the population per meter decreased from 5.84 to 4.50; what do you ascribe that increase in sales to, to energy in extending the business, and getting new consumers of a decrease in price?

A. First of all, the influence of the price is seen in the year ending December 31, 1906; we have an increase of 11.3 in the total sales; in the year ending December 31, 1907, we have an increase of 15.4 per cent in the total sales; at about the end of this year I should judge that the influence of the recent reduction of ten cents

in the price had vanished and then comes the regular growth in the sales per capita due to the advance of the art of using gas; for in the year ending December 31, 1908, we have a growth of 7.3 per cent; for December 31, 1909, we have 7.8 per cent; and for the year ending December 31, 1910, we have 7 per cent. In other words, at a constant price a very unusual increase, about 7.8 per cent has occurred during the last three years, due to the unusual efforts and skill with which the service and the people of Des Moines have been handled, but that 7 or 8 per cent is only about .4 or .5 of 2700 the growth which happened during the first two years, the average of this is 13.3 per cent, during the first two years, for the years 1906 and 1907.

Q. During this period, including 1905, down to 1910, that is six years, we find that the sales per meter have increased about three per cent; we find that the population per meter has decreased from 5.84 to 4.50, and we find that the gross sales have increased from 334,404,640 in 1905 to 531,991,054 in 1910, an increase of a little over 59 per cent; now then, do you ascribe that increase in the gross sales to the fact, or to the claim that the consumers when the price was reduced in 1906, used more gas, or to an increase in the number of consumers?

A. It would appear as if both were the case.

Q. And which would appear to be the more important factor taking into account that the increased sales to each meter was only 3 per cent during the entire period, which the increase of gross sales was 59 per cent?

A. What was the increase in the meters?

Q. It don't appear on this sheet; I have got it here somewhere. The total number of meters December 31, 1904, or January 1, 1905, was 11,436, and December 31, 1910, 19,736?

A. That is to say in those five years?

Q. In six years?

A. Is that December 31, 1910?

Q. Yes.

A. The number of meters run up 8300.

Q. Yes, about 70 per cent; now do you think our increase in sales was due to the decrease in price or the increase in the number of consumers.

2701 A. I think it was due to both.

Q. Which do you think was the more important factor?

A. As a basis for decrease in price, for you would not have got the consumers without it.

Q. Now, let us see; now we had here the first of January 1906, 12,940 meters, and on the 1st of January 1907, 14,640; now that would give us an increase of 1700, wouldn't it?

A. That is correct.

Q. Now, then we had on the 1st of January, 1908, 16,076?

A. 1436 difference.

Q. So that the difference in one year we had a decrease in 10 cents and the other year no decrease with the difference of 250 meters—there is a difference in the number of increase?

A. In other words, it began to flatten out; the progress did, the wave of progress.

Q. Now, then, I want to go back a little further and check your theory a little more with the Des Moines business. Now on the 1st of January, 1896, the rate dropped from \$1.70 to \$1.30 and remained \$1.30 for the years 1896, and 1897?

A. The year ending December 31, 1896?

Q. I asked about the rate first?

A. The rate appears to have been \$1.30 flat for all purposes.

Q. What was it for the year 1895?

A. \$1.70, \$1.50, \$1.25, for use on a large scale.

Q. Now, then, in 1895 our consumption per meter is 24558, isn't it?

A. Yes, 24558.

Q. The next year it jumped to 26652?

A. 26652 cubic feet per meter.

Q. Then, in 1897 it went back to 24921, less than it was in 1905?

A. Yes.

2702 Q. Those are the two years covered by the first reduction, the two years at which the price was \$1.30?

A. That is right.

Q. If you will turn to the revenue per meter you will find in the year 1895, before the reduction it was 38.35; in the next year it was 34.04 and the next year 31.59?

A. Yes, it is so given.

Q. Now, then, on the 1st of January, 1898, we had another reduction to \$1.25, didn't we?

A. You omitted one point; before you leave it, the increase of total sales as the result of that reduction was 25 per cent; that is, referring to the table on page 88.

Q. I am willing to digress and am willing to concede an increase in the total sales, but did you notice that during these two years, the population per meter was 22.72, while in 1897 it was 16.61, and did you take into account the increased number of meters which in 1895 was 2448 and in 1897 was nearly fifty per cent more, 3479, and must not you take that into account before you can say that the increase was due to the decrease in price?

A. As a technical proposition, you are to a certain extent right. But these gas companies are in business for money and nothing else; they are not worried over what engineers are doing in these matters and if they can see a jump of 25 per cent in the total sales of their gas, the wise manager, and you have them, does not worry about a few more services and a few more meters; they are a trivial matter, forgotten in the enormous gain there is in the business. That is the reason why I lay some stress on that 25 per cent, as showing the general tendency.

2703 The MASTER: The increase of sales per meter is without expense to the company, isn't it?

A. Yes, without any additional expense.

The MASTER: But the increase of sales by reason of new customers does increase the expense to the extent of the meters and services?

A. Always to the extent of a meter, and frequently you will find one old service has a lot of new meters attached to it, so that there is no service put in.

The MASTER: It will be increased by the expense of a meter or service?

A. Either the expense of a meter alone or the expense of an additional meter and the service.

Q. Let us check that out a little. I notice by Exhibit 33, for the year ending December 31, 1895, we had a total miles of mains of 38.36 and I note here the total number of miles at the end of 1896 were 48.433; that is an increase roughly of ten miles or something over 25 per cent?

A. Nearly 30 per cent.

Q. Then I observe going on down to where we stopped that from this same exhibit, December 31, 1897 the miles of main were 57.67, so that in each instance there was an increase in services, meters and mains apparently, wasn't there, to get the increased business?

A. Yes.

The MASTER: Are the number of miles of mains in the city of Des Moines unusual, considering the amount of gas sold or are they simply normal?

A. Normal, considering the amount of gas sold.

The MASTER: There are a great many outlying districts?

A. When I say normal, I mean clearly for western cities.

2704 The MASTER: Western cities?

A. Iowa cities.

The MASTER: How is it as compared with New England cities?

A. I should think New England cities had a little the advantage in the number of cubic feet sold per mile of main; everything is snugger, thriftier and closer up.

The MASTER: How is it with Baltimore?

A. I have to figure on Baltimore; I will be glad to.

The MASTER: How is it with Buffalo, if you remember?

A. That would not be fair to compare, for this reason, that the natural gas has gotten into Buffalo and they have four or five hundred miles of mains there; so that Buffalo would be at a great disadvantage as compared with this place; this place would show up a great deal better than Buffalo because the natural gas is in there at 34 and 35 cents.

The MASTER: How is it with the district in New York that you investigated?

A. Do you mean the Island of Manhattan?

The MASTER: Where the Consolidated Gas Company was?

A. That is the richest territory in the world. London, I believe, has between eight and nine thousand sales per capita and that for a long time was considered the richest territory in the world, but New York has gotten up, Manhattan has gotten up to 10,000.

The MASTER: I simply wanted to know how it compared in mains.

A. Well, the sales per mile of main in New York are so far beyond anything else that it is a case of its own.

The MASTER: How is it compared with the city of Boston?

A. I should say Des Moines today the sales per capita was about abreast if not a little ahead of the city of Boston.

2705 The MASTER: Per miles of main?

A. That I can't recall, because I don't know the miles of main in Boston.

The MASTER: I had a curiosity to know. I thought possibly Des Moines had many miles of main as compared with other cities, because I believe it has about 53 square miles.

Mr. BRENNAN: About 54.

Mr. GUERNSEY: The population per miles of main in Des Moines is 467, and the population in Baltimore is 1036, and Boston 672.

The MASTER: I suppose it is just as Mr. Marks said, that the New York district would have perhaps the greatest sales per miles of main in any city in the United States?

A. The sales of gas in New York are so enormous, they won't put in any main now under eight inches. The smallest main we have on the island of Manhattan is away beyond the average and almost the largest size main used in Des Moines.

Mr. GUERNSEY: The city of Harrisburg is an illustration. The population is 98,320 and the population per mile of main is 763 as against 470 here.

Mr. BRENNAN: What is the rate in Harrisburg?

Mr. GUERNSEY: \$1.10.

The WITNESS: Gross or net?

Mr. GUERNSEY: Net.

The MASTER: It struck me all the time that the extension of mains here every year was very great.

Mr. GUERNSEY: The record shows that since 1903 it has doubled from 98 miles to 190 miles.

The MASTER: 88 miles; Jansen Haines says 88 miles when he took charge of it.

2706 Mr. GUERNSEY: I took December 31, 1903, when it shows 88 miles.

The MASTER: I would anticipate that the mains as they are extended there would be an increase in services from those mains.

Mr. GUERNSEY: There is and the meters.

Now, there was on the 1st of January, 1998, the next decrease from \$1.30 to \$1.25 in price?

A. Yes.

Q. That \$1.25 remained in effect during the years '98 and '99, two years?

A. Yes.

Q. Now, then, if you will take the sales per meter the year before that went into effect, they were 24,131, weren't they?

A. That is for the year ending December 31, 1897, they are given here as 24,131.

Q. And for the first year when the reduction was in effect they were 22,684, a decrease of about 1400 cubic feet?

A. Yes, 1400 cubic feet.

Q. The next year they decreased again from 20,689 in 1899 as against 22,684 in 1898.

A. Isn't that 1900?

Q. No, sir; the year ending December 31, 1899.

A. Yes, 20,689 is the sales per meter at that time.

Q. Now, in 1898, the sales increased 11½ per cent according to this table?

A. Yes; you mean the total sales?

Q. Yes; though the sales per meter had decreased?

A. Yes.

Q. And in the next year the total sales increased 17.3, although the sales per meter had still further decreased?

2707 A. Yes, that is a point I have been trying very hard to make.

Q. In 1898, however, the number of meters increased just about 20 per cent, over 1897, that is, from 3479 to 4127?

A. Where do you get that?

Q. From Exhibit 35.

A. I haven't that before me.

Q. In the year 1899 the number of meters increased to 5308 and the mains increased in 1898 to 64.51 from 57.67 in 1889?

A. From 69.42 to 64.51.

Q. Would you say the increase of the sales during those two years in Des Moines was due to the fact that the consumers that were taking gas when the reduction was made used more gas than they had been using theretofore, or to the fact that more consumers took gas.

A. Due to both and due to the fact that you are always able to talk a reduction when you are trying to sell.

Q. You said due to both; you had in mind the consumption per meter during that two years was less than it had been prior the preceding two years?

A. Yes.

Q. In view of that, would you say that the old consumers were using more gas?

A. The old meters probably were making up a little bit. I am not talking about consumers of all meters; do you see the distinction?

Q. Yes, I see the distinction.

A. It is this: the total sales increase first is 11.5 and next 17.3 per cent; that brings in the money. It is true that you have to add some money for services and meters, but the aggregate is away up above the million and what you add in the way of services

2708 and meters to the plant is hardly felt.

Q. Why do you leave out mains there?

A. I should have included mains.

Q. And the manufacturing plant?

A. Well, the manufacturing plant usually has a good deal of margin, and more gas does not mean more men, it only means more oil and more fuel, and until you come to a jumping off point of what might be called a new installation——

The MASTER: Right there, if I understood you right, the production of gas reached about 600 million, and that is about 70 million more, isn't it?

A. About 50 or 60 million, anyhow.

The MASTER: 528 million would make it about 72 million?

A. Yes.

The MASTER: I understood you they would have — institute new machinery and a new holder of some kind; is that correct?

A. Just as a matter of opinion, I would say they would have to put in a larger purifier and a larger holder.

The MASTER: I don't remember whether you stated the expense of those things or not?

A. I did not state it; it is very easy to make a rough estimate if you like.

The MASTER: I simply wanted to find out whether you had or not.

A. I would feel almost safe in stating it to you now, if you wish.

The MASTER: I could not recollect whether you had stated the expense of the new installation, whenever it reached 600 million or not.

A. I tried to say that until you reached 600 million, you would not need any additional machinery; what was there would do.

2709 Q. You would also have to put in some new generators, wouldn't you, when you reached 600 million?

A. Oh, no; what they have got there will pull them through on three million cubic feet nicely.

Q. They have now how many generators?

A. One set of 10½ feet and two sets——

Q. What is its capacity?

A. Will you allow me to lump it?

Q. No.

A. The company itself will not fix the capacity of the 10½ foot accurately.

Q. What is the capacity daily of the 10 foot set?

A. Well, I don't know what they fix it at; I should give it myself as a million and a quarter to a million and a half.

Q. Now what is the capacity of the two eight foot sets?

A. In the case of Cleveland they fixed that at a million cubic feet daily capacity for each one of them; the company fixed that.

Q. The eight foot sets a million a piece?

A. Yes.

Q. What is the capacity of the 6 foot 6 set?

A. I am not at all certain that I can recall it. Would you mind letting me look at that catalog you have there. I wouldn't rely on

that 6 foot 6 set. If you will foot this up you will find it furnishes three million and a little over.

Q. In your total capacity you eliminate this 6 foot 6 set and your total capacity would be less than your maximum day?

A. Less than the rate of capacity for a minimum day.

Q. It would be less than your maximum day capacity of any of the three machines, wouldn't it?

A. You understand perfectly—you don't—but people
2710 running those water gas work—understand, that temporarily you can drive them considerably beyond their rated capacity.

Q. Just how much?

A. That, with the aid of the holder, if you had sufficient holder capacity would pull you through with three million a day; if it came on you, you could get through with one broken down.

Q. Do you think it would be a safe proposition to wait until you got to where you had to work your machine over your capacity to get through your maximum capacity, before you installed another machine?

A. I suggested that when you got up to three million a day you got to add more machinery.

Q. Wouldn't good judgment require that you begin to get this machinery in place and arrange for it before it was imperatively necessary to have it?

A. Well, I should say when you got up to about three million the point had been reached you just stated, before it was imperatively necessary.

Q. And you say we are about there now, for all you know?

A. I shouldn't be surprised to hear you were there.

Q. Ordinarily in building a holder the foundation is put down one year and the lift is put on the next year?

A. That seems to be the way it is done.

Q. So that we ought to be making figures on a new holder now?

A. That depends on what you decide from your sales.

Q. Did you see the estimates for the new work for this coming year, or this year that were actually made by the company and were called for by Mr. Byers and which provided for work this year on new holders?

A. I don't remember.

2711 Q. So you don't know that the estimates of expenditures made by the company prior to the bringing of this suit, if my information is correct, show a contemplated expense during the present year on account of additional holder capacity?

A. I did not. The first I heard of it.

Q. Now do you say that the history of this plant shows that the amount of gas consumed by each consumer has increased as the price has been decreased and that that increase has been obtained without additional investment in mains, services or meters and the manufacturing plant?

A. I could not make any such statement as that; I never had

access to figures that enabled me to say whether they would or would not be correct.

Q. You have noticed, have you not, that at the time that the \$1.30 rate went into effect the population per meter was 22.72 as against 4.50 now?

A. That is for the year 1895?

Q. Yes.

A. And the year 1910?

Q. Yes.

A. Those are the figures shown on Exhibit 36.

Q. So that while there was in January, 1896 one gas meter for every 22.72 people in Des Moines, there is now one gas meter for every 4.50?

A. Yes.

Q. Do you know of any city situated at all similar to Des Moines which approaches Des Moines in satiation, as you call it?

A. Of course, I never knew until this moment the amount of satiation which existed in Des Moines, I couldn't compare it with other cities.

2712 Q. You haven't any general information that would enable you to answer the question?

A. No.

Q. Now, then, whether or not you can increase your sales depends on this question of satiation and this question of whether there are new uses to which the gas can be put, industrial uses?

A. Precisely. May I explain that—one of the most conclusive proofs that I have ever seen in my life of the enormous increase of sales per capita comes in the form of natural gas which is sold at from 25 to 30 cents and which is sold in enormous quantities in the city of Cleveland, and apparently the point of satiation for natural gas will never be reached; there is a continual fuss going on because they cannot get enough of it.

Q. At a price of 25 cents you can compete with coal and things like that?

A. That is what they do; it is 30 cents there, but even at that there are so many conveniences attached to the burning of natural gas that people are willing to pay any slight excess.

Q. So that in the eastern cities or manufacturing cities where there are large industrial uses for gas you would expect a larger per capita consumption than you would in a place like Des Moines?

A. Provided the price is low enough.

Q. At the same price you would expect a larger per capita consumption in those cities than you would in a place like Des Moines?

A. No, I could not. I will tell you the reason why. One of the peculiarities at Durham, North Carolina, a town of 22,000 inhabitants, there was difficulty with the service; they could not get good service—the consequence was to the surprise of everybody concerned, when they put in cooking stoves the sales per capita
2713 were much larger per white per capita than we anticipated and in making inquiry we discovered it was entirely due to the difficulty in obtaining good service there, and the necessity for

cooking. Now I notice here in this city a very large number of small homes—going around—a few large ones, but the great bulk of them are small homes which look as if they formed the best possible district with a low price for gas and for the sale of gas cooking stoves.

Q. Do you know how many gas stoves have been sold here?

A. I do not.

Q. If you found that more gas stoves have been sold than there are meters, you would think that field had been pretty well occupied?

A. That is a new one; I never compared gas stoves with meters before.

Q. You haven't had any experience in putting in gas stoves or that sort of thing?

A. A very lively one for a short time in Durham; couldn't get them in fast enough.

Q. Now, then, I want to refer for a minute to the revenue per meter; the general tendency of the revenue per meter as shown by Exhibit 36 was at first down, was it not, and since 1895 it has run down some?

A. Pardon me for calling your attention to the important point that the revenue per capita has run steadily upwards as the price has gone down.

Q. Will you answer the question and then we will take up the other matter?

A. Yes, in 1895 the revenue per meter was \$30.35, and in 1910 the revenue per meter was \$27.33.

Q. Now, then, take your revenue per capita, take the year 1895 and the revenue per capita was what?

2714 A. In 1895 the revenue per capita was \$1.69.

Q. Now, then, what was it in 1910?

A. \$6.06.

Q. That is less than four times?

A. Slightly.

Q. Now, then, if you take the population per meter in 1895 it is 22.72, isn't it?

A. 22.72.

Q. While your population per meter in 1910, 4.50, that is in 1895 it was about five times what it was in 1910?

A. Yes.

Q. So that if the revenue per capita had remained at the same basis at which it was in 1895, that is among the persons who actually had meters, you would have more than \$6.06 in 1910, wouldn't you; it had not kept pace with the decrease of population per meter, has it?

A. Would you mind cutting that question up in two parts; it seems to be two or three questions in one.

Q. If you don't understand it I will try it over again. You note here the fact that the revenue per capita in 1895 was less than it is at present, which of course is obvious, and it is because the population per meter was very much larger for one thing, isn't it?

A. Oh, no sir; the revenue per capita can be gotten independently entirely of any question of meters.

Q. I know, but before you can infer that each consumer is spending more money on account of that increase of revenue per capita, you must go to your population per meter or your increase in meters.

A. I don't care, it is a question of gross revenue of the 2715 company. If your town is increasing in population all the time; if your per capita runs from \$1.50 to \$6, you are having a bigger and bigger income for the company.

Q. Are you still satisfied that the company, basing it now upon the experience of this company in Des Moines, that the company will get an increase up to 600 millions, if there is a decrease in the rate of ten cents, and that that increase will come in about a year, and that it will not involve any increased capital expenses?

A. I will say, that if the company has not already reached sales of 600 million cubic feet annually that it will within a year or so reach that, after the reduction to 90 cents per thousand cubic feet and that it will be able to do so without any additional expense for mains, but with additional, some additional expenses for services and meters, which will compensate keeping the value of the concern about even as against depreciation—the present value of the concern.

Q. Now, then, how much has the company actually done this year in the way of laying additional mains up to the present time?

A. Of course, I don't know, but yesterday I saw a number of gas mains, it seemed to me lying in an unpaved street ready to go *do* down before the pavements went down; it was on the way to one of the parks.

Q. Would your confidence in your conclusion that it is unnecessary to lay additional mains be at all shaken if you learned that additional mains had been laid since November 31, the date of your inventory?

A. It may frequently be advisable to lay mains where they are not needed at once, where they would not be needed to sell 600 2716 millions; you are getting away beyond that in this town.

Q. You have given us credit for pretty fair management—

A. I have given you credit for being ahead of the game all the time.

Q. If you had learned that the company had in fact been laying mains this year since you made your inventory, you would assume that they were necessary to put the company in a position to take care of the present and immediate future?

A. I would. I would be glad to say though they were unnecessary to get the 600 millions.

Q. Now, then, your computation here based on a 600 million output is also based upon an additional investment?

A. No, additional value.

Q. It is based on no additional investment?

A. It is based on an additional investment in meters and services and no additional present value.

Q. It is based on no additional investment in mains?

A. Yes, I assume that the mains would not be required to jump from 550 to 600 million.

Q. And so far as the manufacturing plant is concerned, it is based on running clear up to the capacity before you take steps to provide any additional capacity?

A. I would call a safe and easy capacity 3 million cubic feet a day.

Q. You didn't call it a safe and easy capacity?

A. I think in my preliminary considerations I mentioned it being a safe capacity for about 3 million cubic feet a day.

Q. You said on your direct examination on page 2349: In my report I called attention to the fact that about three million cubic feet daily capacity of sales was about all that was safe for them to carry; so that your estimate here is predicated upon their reaching their safe capacity before making any provision for increased holder capacity where it is customary to build the foundation in one year and put up the holder the next, or increase the generator capacity or increase the capacity of the purifying boxes?

A. Always in each case, remembering that I have used the word safe capacity, your statement is correct.

Q. Now, I want to ask you about something else in this same connection in this table set out on page 88 of your report; it appears that the output for the year December 31, 1907, was 15.4 per cent more than the output for the year ending December 31, 1906, that is right, isn't it?

A. It so appears.

Q. Now then, that is a greater increase than you figured here to get your 600 million, a greater percentage increase?

A. Yes.

Q. Now will you turn to Exhibit 24 and see whether the actual experience of the company verifies your assertion that such an increase would only amount to the cost of oil, labor and so on, by the actual Pers.

A. Spell Pers.

Q. P-e-r-s. That is a technical expression with the gas people.

A. It is indigenous to Des Moines, I believe.

Q. Turn to page 83 of your report—your figures are about the same—you find the total cost per thousand in the year ending February 28, 1907, was 64.90?

A. 64.90.

Q. And your total cost for the year ending February 29, 1908, which includes this big increase of about 15.4 per cent is 63.50?

A. So stated.

Q. Now there is a difference of a cent and a half per thousand?

A. Yes.

Q. According to your own figures, how much of an increase does that cover at 15.4 per cent?

A. This figures 31,658,974 cubic feet.

Q. These figures I call your attention to on page 83 are the figures which are made up, as you stated, by the City's experts and carefully checked by you before you adopted them?

A. Gone over by me and examined.

Q. Didn't you tell us before you adopted them you carefully went over the matter so that you were satisfied they were right?

A. About right on an average, yes.

Q. That does not indicate that your theory that the increase in the amount of sales involves only an increase of about 25 cents a thousand?

A. It does for this particular step; from 530 million up to 600 million.

Mr. BRENNAN: That question is objected to as being argumentative in form.

Q. Let us get at it in another way. For the first year there are shown at page 83 of your report the operating cost thereof 64.90 the full year?

A. Yes.

Q. For the last full year, 65.30 which includes 3 cents in the disputed item?

A. Yes.

Q. During that period what was the per cent of increase in the amount of sales?

A. I cannot get that, because this tabulation on page 83 ends February 28, 1907, and the tabulation on page 88 ends on December 31, 1907, you see.

2719 Q. You can get at it approximately, can't you?

A. I should think, rough work, yes. In 1910 the total sales appear to have been 531,990,000 and in 1907 the total sales appear to have been 429,519,000; the difference is 102,472,000; dividing that by 429,519,000 gives about 24 per cent increase in the period elapsing between December 31, 1907, and December 31, 1910. The figures on page 83 do not correspond exactly because the year, that ends February 28, 1907, and gives 64.9 per thousand feet cash operating cost, anticipates December 31, 1907, by ten months. The year ending December 31, 1910, and giving 65.31 coincides with the 531,991,000 sales.

Q. So that so far as the record in this case goes at least, in order to sustain your figures you will have to anticipate a condition that has not heretofore existed in the experience of this company, or a result that has not heretofore existed.

A. No, because at 600 millions I have given you the total cost amounting to 64 and a fraction cents per thousand cubic feet sales.

Q. In order to get that you put in six cents depreciation on the 531 million sales which were not any of the figures on page 83?

A. I put in all through six cents for residual depreciation.

Q. Turn to page 96—528,375,000 under operating there, you took 69.33 cents which includes six cents depreciation?

A. Yes.

Q. That includes six cents depreciation?

A. Yes.

Q. And you did not figure any depreciation on the other 71,625,000?

A. The reasoning for that is very simple.

Q. I asked you for the fact?

2720 Mr. BRENNAN: I think he ought to have a chance to explain.

A. I did not figure the depreciation on the increase and for this reason: that 528,375,000 cubic feet at 69.33 cents covers under the existing conditions not only the cash operating cost but also the existing residual depreciation, and would at that rate cover it without any question whatsoever from anybody. If however, by the lowering of the price, which is done of course, without in any way modifying the works, the sales jump up to 600 million cubic feet, your depreciation would be taken care of for that time and the only thing that would befall you would be the necessity of at once increasing the amount of coke and oil and perhaps the amount of purifying material and attention to it, because you would have to purify more rapidly, and in that way nothing would be disturbed in the regimen of your works at all.

Q. To get back, you get your 64 cents and you already put in six cents per thousand feet on that 528,375,000 in the computation on page 96, which gives you the gross operating 584,228?

A. Yes.

Q. And that six cents is not included in the operating cost shown on page 83 from which you made your comparison?

A. That six cents is not in page 83, because that is the cash operating cost.

Q. So that to make the comparison fair you would have to compare 63.33 plus 6 or 69.33 with 64 to get at the difference you figure here, wouldn't you?

A. Put it this way if you like.

Q. Please answer the question?

A. That would be it.

Q. In other words, you figure a decrease of about five cents
2721 per thousand?

A. Which would be what I think would happen.

Q. You did not figure any increase in operating on account of additional meters and on account of additional services?

A. Not for that step of about 10 per cent, you would not know it in your labor in the works or the labor in the office.

Q. Still our aggregate is made up of very small things, none of which you would know alone?

A. Well, that is too general; I couldn't answer that question.

Q. Well to summarize this, in order to get your figures as to your return here, it is necessary for you to take the figures which result in making the cost per thousand of the gas about five cents under the average of the last five years?

A. You mean—I see what you mean, although you haven't stated it. You mean and include residual depreciation?

Q. Certainly; or if you exclude it in one, exclude it in the other; it don't make any difference as long as you don't put it into one and take it out of the other.

A. Taking it either with or without residual depreciation it would appear to me that the result running from about 531 million to 600 million would be a reduction in the cost of gas of about five cents per thousand cubic feet, giving 64 cents as the cost of gas delivered at the consumer's meter in this case, as against 69 cents heretofore.

Q. Now I want to ask you one or two questions about working capital. You allowed us 13 cents per thousand on working capital, based on some experience of somebody in a Massachusetts Company, as I understand it?

A. Based on careful consideration of what Massachusetts companies seem to do.

2722 Q. What Massachusetts company did you take into account?

A. No one in particular.

Q. Which companies did you take into account?

A. All of them, the whole of them, looking them all over.

Q. You couldn't tell that it is 13 cents a thousand by just taking and looking at them, this is based on figures?

A. I made a lot of figures; after all, you may say I didn't use them in so indeterminate a matter as the working capital of an operating company.

Q. Did you take this for the year 1910 from the 1910 report?

A. What, working capital?

Q. As a matter of fact, what you are giving us here is what you gave them in the New York case?

A. No, I haven't given you anything here, not except the 13 cents.

Q. Didn't you testify in the New York case: "If we subtract the total of these floating liabilities \$637,165.66 from the working capital \$852,249.94 we obtain \$215,084.28 being the active capital furnished by the stockholders for the ordinary needs of the gas business. If we divide this amount by the total annual sales 1,653,012.30 cubic feet we obtain \$0.13 per annual M sold as the amount of capital actually and practically necessary on the part of these Massachusetts companies." Did you say that?

A. That sounds like it, but I have not used that method in your present case today.

Q. Tell us what companies you used here?

A. All of them.

2723 Q. All of the Massachusetts companies?

A. Yes.

Q. For what years?

A. That would be very hard to say. I looked at a number; there was no definite work done. I can give you the working capital in items.

Q. I prefer to cross examine along my own lines. You say in your report here from my own investigations of the working capital of the Massachusetts Gas companies, which I deemed to be well

managed, I am led to believe that 13 cents per thousand cubic feet is all that is practically needed. Now then that statement is true, isn't it?

A. That is correct.

Q. That is the basis that you have for your conclusion here?

A. That was the basis of my conclusion many years ago; that has *sin* since been modified, but the conclusion has not been changed.

Q. You stated that your investigation of the working capital of the Massachusetts companies is what led you to believe that 13 cents is right, is your investigation what led you to that belief?

A. What led me to that belief; not what confirmed me to that belief.

Q. What companies did you investigate?

A. I don't recall, there were four companies, in 1906 or 1907; I haven't made up your working capital in that way at all.

Q. Can you give me the names of the Massachusetts companies which you investigated in order to reach this conclusion?

A. The effort of memory would be too great; I haven't even taken the trouble to revise for the purpose of getting your working capital.

2724 Q. How recently did you make this investigation?

A. Which investigation?

Q. The one you refer to here, which led you to conclude that 13 cents was a fair amount to allow.

A. I think it was in 1906 or 1907, I don't know exactly.

Q. Was it prior to the testimony in the New York case?

A. Even that I can't recall; I know it was in the New York case; There was 15,000 pages of testimony in that and 2,500 pages of exhibits.

Q. Then you do not have any idea what companies those were on which you based this conclusion—now then in the consolidated case, do you remember what companies you took?

A. I couldn't recall it.

Q. You made a running guess at it?

A. I didn't care to look at it even.

Q. Now, when you made your computation here did you include the materials on hand?

A. That was what I worked out here, a certain amount of materials on hand and a certain amount of cash.

Q. And did you figure that we had to wait a month and a half for our receipts for gas?

A. How about your quarter meters?

Q. We don't have to wait so long on them.

A. I would like to give you the working capital, if you will permit me to go ahead.

Q. I see you are rather evading the report here. I want to to get you down to brass tax; you say you got this out of the Massachusetts computation?

A. I did.

2725 Q. Will you say that the working capital of the Massachusetts companies in 1910 as shown by the 1910 report of the Massachusetts Commission amounts to only 13 cents per thousand cubic feet of sales.

A. I will not.

Q. Will you say it amounts to less than forty cents per thousand cubic feet of sales?

A. I will not; I have not investigated it.

Q. So that the statement in this report as to how you got this 13 cents is not to be applied to any existing condition in Massachusetts?

A. I don't know. I will tell you very frankly, I did not look into it at all.

Q. I am assuming what you say here is true. You say on page 82 from my own investigations of the working capital of the Massachusetts gas company which I deemed to be well managed, I am led to believe that 13 cents per thousand cubic feet is all that is practically needed. I assume that statement is true?

A. It is.

Q. You also say that investigation is so ancient that you cannot say whether an investigation made now of existing conditions in Massachusetts would verify it.

A. I can say that there is also another statement of about 30 cents there which is equally ancient.

Q. You did not adopt 30 cents in order to be entirely fair to us; you took 13 cents?

A. I took the 13 cents.

Q. That is because you wanted to give us the benefit of the doubt?

A. Always.

Q. Now you go on further—coming to figures I find the necessary working capital for the profit of the Des Moines Gas Company 2726 about 68,689 which results from the multiplication of 528,-375,000 by 13 cents; is that the way you got it, or is this statement not correct?

A. That is the way I got it.

Q. You haven't finished the idea as to where you got that 13 cents; you can't remember, can you?

A. You mean originally?

Mr. BYERS: I think, your honor, that has been fully explained.

The MASTER: I think he has answered this question.

A. I got it as a constant or average result of a considerable amount of work fixed at 13 cents in my mind and trying it on this carefully and checking out and making a list of what things were required in the working capital and finding that checked out about 68,000 I let it go at that.

Q. Have your expert accountants told you what the actual average working capital of this company has been for the last five years?

A. They have not.

Q. You don't know whether it is two or three times what you have got here?

A. I have heard the testimony here—you wanted \$150,000 working capital, something of that sort; that is all that I have heard.

Q. Well, now how much in making up your working capital would you think the store room supplies would ordinarily inventory, what would be a fair amount?

A. For this concern about \$8,000.

Q. About \$8,000?

A. About what you would need to carry in the way of samples, and fixtures for sale, service pipe material and necessary emergency material.

2727 Q. Would your judgment on that be affected any if I should tell you that the actual amount on the 28th of February 1907 was \$82,978.83 and in 1908 \$76,492.07 and for the year 1909 the same date, \$53,701.38 and on the 31st of December 1910, \$40,251.89?

A. Not as to the actual necessity of having that on hand.

Q. You think the management here is not good then in this respect?

A. I don't know; I am talking now about what is actually needed for working capital.

Q. In this respect you did not require or regard the actual results as shown by the books as valuable?

A. I did not.

Q. What did you give us for store room supplies?

A. About \$8,000.

Q. What would you itemize that?

A. About \$3,000 for fixtures for sale and \$5,000 for service pipe material and necessary emergency material, such as you have to have in the work shop underneath the main office.

Q. That is all you included there for the store room?

A. Only samples and odds and ends.

Q. You have got just two items, emergency supplies, services and fixtures and that is all the matters you took into account?

A. Yes.

Q. Now, then, for the stock of tar, how much did you allow us?

A. I thought you might be able to hold on until you got a thousand dollars worth of tar in your well.

Q. Do you know what that is, the average for the last five years?

A. I do not. About two cents a gallon; you know, fifty gallons to the dollar.

Q. Where would we have to get it?

2728 A. You mean sell it?

Q. Where do you have to sell it?

A. There is just one concern in the United States that seems to buy it and they don't want very much of it. I think it is Barrett in Cleveland, Ohio.

Q. How much tar do we make to a thousand cubic feet of gas sold?

A. Water gas?

Q. Yes.

A. I don't know.

Q. What I was getting at is how many dollars' worth of supply of tar do you think we would have to have there?

A. I thought 50,000 gallons was about where you would have to get rid of it.

Q. You can't tell us about how much tar we ought to get out of a thousand cubic feet or a million cubic feet?

A. No, not oil tar.

Q. Didn't they do that at Durham?

A. No, that is coal gas.

Q. Nor at Fostoria?

A. They did at Fostoria; you was not sure what kind of oil you were putting in and so you did not know what kind of tar came out; none of your experts can tell you.

Q. Now, then, what did you allow us for the gas stock?

A. What do you mean?

Q. I use it in the ordinary sense it is used.

A. I thought you had to have oil on hands, about 300,000 gallons and allowed about \$9,000; that would carry you a month.

Q. That is what they mean by gas stock in gas book keeping?

A. I am not a gas book keeper; tell me what you mean.

Q. Gas in the holder?

2729 A. Why didn't you say so. Gas in stock is all right, but you got it mixed.

Q. How much did you allow us on account of gas in the holder?

A. Not a bit.

Q. We always have an investment in that, don't we?

A. Yes.

Q. How much did you allow us for boiler fuel stock?

A. Coke and coal on hand?

Q. I don't mean that; I mean boiler fuel.

A. I didn't separate it; I put coke and coal on hand anywhere from \$5,000 to \$10,000.

Q. Would you be inclined to modify that at all if you learned that in the last five years there had been no time at which there has been as little as \$10,000 of coke or generator fuel stock on hand?

A. No, because \$10,000 at the outside is all you need for safety; what you need for commercial reasons is a matter of balancing the cost against the investment.

Q. Where do we have to get our coke?

A. I don't know.

Q. Isn't that a factor to be taken into account?

A. That is the reason I made it an indeterminate quantity from \$5,000 to \$10,000.

Q. That includes also boiler fuel?

A. It includes boiler fuel.

Q. You don't know how much you included for any one?

A. I should say four-fifth- and one-fifth; your coke costs you \$5.89 here doesn't it.

Q. I don't know.

At this time and adjournment was taken until 1:30 P. M.

2730

1:30 P. M. TUESDAY, August 22, 1911.

WILLIAM D. MARKS continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Mr. GUERNSEY: Complainant offers in evidence the chart marked complainant's Exhibit 41 and the papers marked Exhibits 42 and 43 which are the figures used in connection with that chart.

Mr. GUERNSEY: Mr. Brennan did you get that letter of Professor Marks' of February 7th?

Mr. BRENNAN: I have not had a chance to see the Mayor, he has been out of the city, I expect to see him this evening if he returns to the city.

Q. Now Prof. Marks I think the last one you gave us was boiler fuel and generator fuel. Now take the other items that you take into account in making up this capital account, working capital I mean.

A. Oil, 300,000 gallons \$9000. Cash on hand at the beginning from \$40,000 to \$45,000. Total \$68,000.

Q. Those are all of the items which you included?

A. That is it.

Q. Now take Fall River, will you take the report for 1910 for Massachusetts and tell us how we would find the actual working capital of that company there from that report? I did not ask you to work it out, unless you prefer to, I just asked how we would get it?

A. I would like to go over this pretty thoroughly.

Q. All right, I have no objection, only I didn't want to be responsible for the time.

A. Do you wish what I would give them as working capital 2731 or what you think they have got as working capital?

Q. The question was how you would ascertain from the report what their working capital was?

A. You mean what is the actual value, not what I consider necessary?

Q. Certainly. I didn't ask you to compute it, I simply asked you what method you would adopt to ascertain from the report what their working capital is.

COURT: Can you answer without taking up so much time?

A. I am just through. Looking over the balance sheet of the Fall River gas works company I find amongst its assets the following, the quick assets, due for gas \$22,604. Gas coal on hand \$5,552. Tar, \$5,602. Meters on hand, \$6,276; other material not specified \$47,356; stoves \$4,446; fixtures \$1,098; sundry accounts due to the company \$11,743, making a total of \$104,577 if I have footed it correctly. Now I find on the other hand amongst the liabilities the unpaid bills \$13,607, the assumption being that these unpaid bills are covered in the assets above stated, deposits from consumers \$5,171, that is cash in the hands of the company for any use that they choose to make of it and amounts due from the company which they should pay out \$8,697 or a total of \$27,475. The difference between \$104,577 and \$27,475 is \$77,102. Now they have

on hand cash to the amount of \$127,406 making \$204,508 available liquid assets.

Q. Well the actual working capital is shown by this report isn't it?

A. What they use there, yes; of which \$77,000 is invested and the rest is in the form of cash.

Q. So that their actual working capital is about 41 cents a thousand cubic feet, their sales being 495,612,000.

2732 A. That depends on the matter of cash.

Q. It depends on how often their sales will go in \$104,508 which was the actual working capital.

A. Also on whether that \$127,000 in cash there was actually needed or not.

Q. I am not talking about what they needed, talking about what they had?

A. That is what they had.

Q. That is about 41 cents a thousand cubic feet of gas sold?

A. I have not the number of thousand cubic feet of gas—

Q. It is under 500 million, 495,612,000. Five hundred million would give over 40 cents?

A. Yes, sir.

Q. So 41 cents is near enough right?

A. Forty one cents is near enough right I should say, or 40 cents anything of that sort.

Q. On page 58 of your report you have depreciated the services 15 per cent have you not?

A. Yes, sir.

Q. On that page just below that you say it is customary to reckon the life of wrought iron services at about 15 years?

A. Yes, sir.

Q. Who reckons it at fifteen years?

A. The last instance I can recall is the chief city engineer for the city of Minneapolis who testified that fifteen years was the average life of wrought iron services in the city of Minneapolis and as the soil there seemed to be about the same as it is here I thought that would be about the life you could expect here for the untreated services.

Q. I know, but you say it is customary. Did you predicate 2733 this statement that this is customary on this single instance?

A. Oh no.

Q. Who else?

A. I have heard that before again and again.

Q. Well where?

A. I think the first time I heard of that was in St. Louis forty years ago where that statement was made in a case of purchasing a lot of old gas mains from the old St. Louis Gas Co.

Q. Did you predicate your statement that that is the present custom on that statement you heard in St. Louis?

A. No. In fact I think I state below there that if they are tarred a longer life is given to them.

Q. Are these services tarred now?

A. They seem to be tarring them now.

Q. How long have they been doing it?

A. I don't know. I know that the probabilities are it has not been very long.

Q. Just to give the company the benefit of the doubt you depreciated them all as if they had not been tarred?

A. No. In referring back to the testimony given in 1894, I can't recall the name of your engineer in charge at that time, but I think it was Pratt, he took 2500 services as in existence at that time and he further valued them on a basis of an average of 35 feet to the lot line or house line. In other words stated that about thirty five feet was the estimated average length of your services anterior to 1894. And how far or how long you did—how long you kept it up between 1904 and 1910 I had no means of finding out. I took it for granted that particularly anterior to 1894 the services that had been put in would probably have to be replaced, in other words that there would be very few of them, I am talking 2734 in averages, of your 2500 left that were in at that time, they would be replaced one way or another charge for repairs. That would cut your services down to about 14,500 something like that, that might by some possibility be 80 feet long.

Q. What has this got to do with depreciation and tarring of the services?

A. Now since that time, since 1894 I took it for granted that all of the services had been practically been put in new. That is speaking in averages and that 1894 to 1911 gives you about fifteen years and about half of that life was seven years, seven years and a half something of that kind would be somewhere near an average life of your services giving you the advantage of a year or two as I have tried to do.

Q. You mean age instead of life don't you?

A. That is not depreciate you as much as I would if it was eight or nine or ten years of age instead of seven and a half is what I am getting at.

Q. If as a matter of fact services last longer than fifteen years then of course this depreciation is too great?

A. Not necessarily because I heard from your testimony, I happened to go present and hear that—I forget now I think it was Mr. Lea's testimony that you put yo- services about eight years of age and life about 20 years and then I found Exhibit 8 which you sent in here and from which the data were obtained for the various reports you have turned in apparantly and there it was carefully computed at I think about eight years of age.

Q. (Question read.) That is true isn't it? You have taken this depreciation on the basis—

A. As a matter of age seven and a half to twenty five—
2735 COURT: I wish you would answer the question we will never get through if you don't.

A. I should say so yes.

Q. The Wisconsin Commission takes 25 years as the life of services don't it, for the purpose of figuring depreciation?

A. That I don't know.

Q. If your theory is right here, of course the services in Des Moines must have been renewed within a very short time, is that right?

A. Fifteen years.

Q. If they had only been renewed within fifteen years that would give them an average age of seven and a half if the number had been uniform all the time.

A. Yes, sir.

Q. And of course the number of services have been increasing as the output has increased, you take that into account?

A. Yes, sir.

Q. So they must have been renewed much less than fifteen years the whole thing put in if your theory about the average age is right?

A. Not all of them, but on the average they have been renewed in less than fifteen years.

Q. Of course if it turns out that our services have a life longer than fifteen years, then this depreciation is too great?

A. As a matter of age, that might be correct.

Q. Now did you ever lay any services except in Durham, Fostoria and St. Louis?

A. No.

Q. Who told you what the costs were?

A. In what way are you speaking of now, the costs per 2736 foot?

Q. Well how ever you did it.

A. It is given in my report here very carefully and in detail.

Q. Who gave you the figures so as to get what you put in?

A. First the ordinary price list of some local company here for inch and a quarter pipe gave me 5.7 cents as the net cost per foot of inch and a quarter pipe, I don't know that all your pipe are inch and a quarter but I gave you the benefit of the larger size. Carting, fittings and miscellaneous 4 cents is my own estimate. Labor ditch, etc., I have already explained to you I priced there a good many places as to the cost of ditching, I took that at ten cents, making a total of 19.7 cents. The average cost per foot length I take at about 20 cents, again somewhat swelling your figures. I had accepted your figures of 80 feet long for new services. Of course I did not—I ought not to use the word accept for I did not accept it. I made use of it as the only available figure and took 80 feet which gave \$16.00.

Q. You run your carting, fitting and miscellaneous for inch and a quarter service higher than you do for three inch cast iron main don't you?

A. That is one of those jobs that the only way you can get at it is by knowing about what actually does happen and I found it to be so.

Q. Where did you get the experience of what actually does happen?

A. I think I got most of it in Durham along about 1900, along about there.

Q. I suppose you have not kept the figures?

A. Oh no.

Q. Now turn to meters, page 60. Did you ever buy any meters since you left Durham?

2737 A. No.

Q. Ever buy any except at Durham?

A. Yes, sir.

Q. Fostoria do you mean?

A. Yes, sir.

Q. They had not been bought before you went there?

A. Some had and other- had not.

Q. That the extent of your experience in buying meters?

A. Had a very large experience in the early days, happened to fall one of my jobs to look after meters awhile.

Q. Same kind of meters as this?

A. No, the old wet meters.

Q. Not the same price as these?

A. No.

Q. Where did you get your prices on meters you used as a basis?

A. This here I got in Cleveland.

Q. Who told you about them?

A. I took the statements of Walter K. Sladden.

Q. Who is he?

A. He is now secretary of the Cleveland Gas Light & Coke Company and Mr. Edward Wormington who was formerly manager of the People's Gas Light Company of Cleveland.

Q. So what you know about prices of meters is what these gentlemen told you?

A. They made oath to it before the tax commissioner.

Q. Trying to cut their taxes down were they?

A. I don't know I suppose it was something of that sort. They did get them raised though as a result.

Q. Now then these prices, take a three light meter \$4.35 is that the price you charge for our meters?

2738 A. No, you will observe I gave you the additional of 15½ per cent below, do you notice it on page 61. I add 15½ per cent to cover 33 per cent discount instead of 42 per cent discount assuming that the U. G. I. of Philadelphia might not be willing to use its influence directly and without some compensation. It places your meters at 33¼ off.

Q. Have you any reason to assume as you do here or insinuate that the U. G. I. Company buys meters at one price and sells them at an advance to the Des Moines Gas Co.?

A. I feel tolerably confident of it because in the case of the generators here for instance I assume \$60,000 where the U. G. I. of Philadelphia manufactured these generators and in all probability delivered them to the U. G. I. at Des Moines at the same rate that they would at Cleveland or some outside concern.

Q. Now if I can understand you get the idea out of the words

you infer that the U. G. I. sold to the Des Moines Co., generators at the same price at which it would sell them to anybody else.

A. I base my figures on that yes.

Q. Upon that inference you infer that they bought meters and sold them to the Des Moines Gas Co. for more than they cost to the U. G. I. Company, is that right?

A. I would not put it that way exactly, but I have very little doubt being as old as I am that the U. G. I. is in control of meter factor-s, own stock of them perhaps not appearing on surface.

Q. Now what definite knowledge have you for that statement, I want to know just how careless you are in your statement, how much you have to have in the way of facts in order to swear to it because you are under oath now. Now what definite information have you as a basis for your statement that the U. G. I. Com-
2739 pany controls some meter manufacturing company from which these meters are purchased if you know?

A. I have no legal proof of any sort or kind in regard to that matter. I have heard talk with regard to that matter which leads me to believe that they called their usual policy of controlling—I am not speaking of this in a derogatory way. Their manufacturing department deserves its profit and so I give you 33½ off.

Q. What meter company is it you claim they control?

A. Well suppose we don't go any farther, I have given you 33½ off.

Q. I want to go farther and see if you know anything about it or whether it is just hot air. What meter manufacturing company is it you say you have reason to believe the U. G. I. Controls. You have brought this thing in, now let's follow it down.

A. I don't propose to say anything more than I have said.

Q. Have you the fainter idea that it controls any meter company?

A. I have very distinctly stated that I have a very strong feeling that it does.

COURT: You don't know anything about it as a matter of fact?

A. I have no proof except heard talk that has come to me.

Q. Now can you name one person that has said this to you?

A. I certainly shall not mention any.

Q. Can you name one person?

A. I certainly shall not do so.

Q. I have not asked you to do so, I asked you whether you could.

A. Name a good many if I wanted to.

Q. But you don't want to have us run it down is that it?

A. I don't care to go any further into the matter.

Q. I should not think you would. Give us the names of
2740 some companies that manufacture meters.

A. Oh I am not posted on that at all.

Q. Can you name one?

A. If it has not changed its name we will call it the American Meter Company.

Q. Where is it?

A. Was located for awhile in Philadelphia.

Q. And can you name another, is there any that is nearer this market?

A. No.

Q. Can you name another company that manufactures meters in the United States.

Mr. BYERS: I think that question was all covered two weeks ago or several days ago.

A. I mentioned one to you, that is sufficient.

Q. Do you know of any others?

A. I have talked to Mr. McLehaney in regard to meters quite frequently.

Q. Do you know of any other company that manufactures and sells meters?

A. Mr. McElhaney of Philadelphia, McLehaney Brothers.

Q. Are these prices \$4.35 for three light prices f. o. b. cars in car-load lots at Cleveland?

A. So stated.

Q. That is all you know about it?

A. That is all.

Q. Now then you took these prices these men down there said they were paying and they said they were getting 42 per cent discount?

A. They did.

Q. From this price, \$4.35, was it?

2741 A. Oh no, these are net prices.

Q. What per cent of these prices did you charge with this?

A. I carried it to 33-1/3 per cent, carried it working through there.

Q. You made the discount from the cash price or from the list price 33-1/3 per cent?

A. No, I did it this way if you like.

Q. I want to find out how you did it.

A. 42 per cent, that leaves 58 per cent. If you multiply 58 per cent by 15½ per cent you will get about 67 per cent. Multiply 58 by 15½ and then add 58 to it?

Q. You mean take 115½ per cent of the 58?

A. If you choose to put it that way.

Q. That is a fact isn't it?

A. Yes, sir.

Q. That is the way you made it up?

A. Yes, sir. Took 15½ per cent profit if they were sold at 42 off.

Q. And that would pay for the meters on the car in Des Moines you think?

A. I think so.

Q. Less freight?

A. The freight is all charged in you know below.

Q. This item does not include the freight?

A. No.

Q. It is f. o. b. the cars Philadelphia then?

A. Philadelphia or wherever they are manufactured.

Q. Not at Cleveland. Now then you allow per meter \$1.00 for furnishings settings connections and so on?

A. Total 19,742 meters furnishing, etc., \$1.00, \$19,742.00.
2742 Q. What does freight, etc., cover.

A. Oh take about 50 cents of the dollar for getting the meter in position and the balance of it is handling, for carting it around and fr-ight on it.

Q. Well it covers the expense that is incurred in connection with the meter from the time it leaves Philadelphia or wherever you buy it until it is in place in Des Moines?

A. Yes, you might call it the handling of the meter, in other words.

Q. When you get the meters here at Des Moines what do you do with them first?

A. I suppose the first thing they take them up first and stack them up.

Q. Put them in the store room?

A. Yes, sir.

Q. Then what is it necessary to do?

A. Well if they are not sealed, that is authoritatively sealed, I suppose they test them. If they are authoritatively sealed by the city, I don't think there is any public inspector here who has to seal them.

Q. When you say authoritatively sealed you mean sealed by whom?

A. By the public inspector.

Q. Do they have public inspectors where they get these meters?

A. No, I meant here.

Q. The public inspector here would not seal the meters if there — one, I guess there is not, without testing them I suppose?

A. Yes sir.

Q. So they must be unloaded, take- to the store room and tested, that is the first?

A. One minute, if there is not an inspector here you know
2743 the com- company would be very likely to accept the meter test of the meter company as being probably better than anything they could get done.

Q. As a matter of fact the company don't take the test, does its own testing. Now then what would be the next step?

A. With the meter?

Q. Yes, sir. Do they put a tag on it with a number?

A. I presume so. I don't know how they card their meters here, what system they have about it. Of course they keep track of them in their own way. May be they paint a number on them.

Q. What do you mean by dipping meters?

A. Do I say anything about it?

Q. No, but I see it on this memorandum I have and I am not an expert in the gas business, I don't know what it means and thought you could tell me.

A. I don't know what they mean by dipping meters unless they mean to paint them.

Q. Then I don't believe you know much more about that than I do.

A. Not their way of talking about it.

Q. Do you know what dipping a meter is?

A. I don't know it by that name.

Q. Is that an ordinary trade name in the kind of meters that are in use here?

A. I don't know. I simply know what your meter is here, it is a dry meter on the operation of a bellows having a valve movement which is operated by these bellows which move to and fro and these bellows composed of I suppose tin, with a sheepskin preferably, an oil soaked sheep skinned diaphragm.

Q. When the meters come here, do they have this oil in them?

A. Not usually.

2744 Q. And do they call meters that have oil in them so that this sheepskin dips in the oil as the bellows expands, dipping meters?

A. I never heard that name used at all as dipping meter, it is some localism like something else you mentioned a little while ago, the per. You have to keep your diaphragms oil soaked, you can't work a meter—the trouble with a meter is the diaphragms dry up.

Q. How long do they have to be soaked with oil?

A. Supposed to have all the time.

Q. And how often do they put this oil on to them?

A. Oh you have got me. I never bothered enough about meters to find out. If it don't work right the meter maker is expected to make it good. I could not tell you to save me anything about how often they dip a meter as they call it.

Q. Did you ever hear of a meter that had a receptacle in the bottom for carrying some oil so automatically the diaphragm dipped itself?

A. I never paid enough attention to the mechanism of a meter to be posted on that.

Q. And is it meters of that class that we are using here in Des Moines?

A. You have a most elaborate table for that purpose and it is mentioned in your inventory list, can be seen in your meter building having a number of compartments for oil and that sort of thing, but I did not pay much attention to it, wasn't a very big thing.

Q. Do they mean by dipping meters putting oil into this receptacle in the bottom of the meter so when this meter operates this diaphragm will oil itself?

A. Well if you were in New England they would call it oiling a meter I suppose in Des Moines call it dipping a meter and I suppose the Pacific Coast might call it greasing a meter, I don't know.

Q. You don't know do you?

A. No.

Q. Just drawing on your imagination again. That is something that a meter of this kind has to have done before it leaves the store room isn't it?

A. I don't know whether you do it or not.

Q. Now then what do you do in the way of additional work on this meter before it leaves the store room?

A. I suppose you unwrap it.

Q. What else?

A. I never looked one of them over. Fix it up I suppose so you can hook it into your union joints. Union coupling and I don't know whether you use lead connections or whether you hang it up on union co-plings, I didn't take the trouble to look.

Q. You did take the trouble to estimate all this didn't you and give us about 50 cents for it?

A. For what?

Q. For this work we are doing on the meter.

A. It was very important that the court should know about what the average expenditure was connected with this thing.

Q. You estimated expenditures without knowing what they cover.

A. I can hardly say that.

Q. What soldering is done in the shop before a meter is taken out?

A. A new one?

Q. Yes.

A. What kind of connection do you use, do you use a union joint coupling or hang it up by the wrought iron service.

Q. Well take what you estimated?

2746 A. I didn't look it over to see.

Q. You estimate here \$1.00 per meter covering the entire cost for each meter on 19,742 meters from Philadelphia to their place in the house?

A. That was handling meters.

Q. Where have you estimated these additional items of cost?

A. When you put your service in you hook your meter on.

Q. You have down below the next line total delivered and erected for operation \$163,594. Does that cover the delivery and erection of the meters?

A. With the exception of what you spend on services running it up to it.

Q. That is not part of the meters, that is services.

A. Well the service goes into the meter, take it either way. You can say part of this cost—you can say the meter connected with the service or service connected to the meter, whichever way you choose to put it.

Q. How did you estimate it as a matter of fact?

A. In the case of the meters here I concluded that the service would cover about all up to this point here where I gave you 15½ per cent to cover 33 per cent discount instead of 42 and then gave you overhead charges of 12½ per cent and reached an outside structural cost of \$212,570 by first adding 15 per cent and then adding 12½ per cent and let the rest go with the service.

Q. You told me a little while ago that your \$1.00 covered the total expense of the meter from the time it left Philadelphia until it was set up in the house. Now if that is not true tell us just

waht part of that expense you included in your estimate of the services.

2747 A. I tried to make that clear to you by saying I think it meant handling of the meter from the time it started out of Philadelphia or whatever place you started from until it landed in the place where it was intendee to work. In the meantime you have your meter department going on here which is $12\frac{1}{2}$ per cent on top of that. Then in order to be sure to be on the safe side I added $12\frac{1}{2}$ per cent giving you the ordinary discount of about one third off.

Q. That don't answer my question. Can you tell what items are included in that dollar or turn it around and what items in connection with meters you now classify as services.

A. I don't classify anything with services as meters unless you get it getting up the meter connection.

Q. You send a man out to set a meter, do you call that service or not.

A. No, I call that as I said to you about 50 cents.

Q. Now we have a man that does some work on a meter in the storehouse do you call that service or not?

A. I call that $12\frac{1}{2}$ per cent.

Q. That is overhead.

A. Business of the meter room is overhead charge there.

Q. Then you didn't figure overhead on the actual cost, you put actual cost into the overhead, that is right isn't it, if what you say is correct?

A. That is a little bit fine for me, I thought that about $12\frac{1}{2}$ per cent would cover what you had to do on the meter in the way of extra tests, attention and everything of that sort inside the meter department.

Q. That is in your overhead?

A. Well maybe I used the wrong phrase, when I said overhead, I didn't mean I included any part of the present salary in
2748 the care of meters or anything of that sort.

Q. You can't tell us can you what it is necessary to do from the time a meter is received in Des Moines on the cars until the meter is in place in the house?

A. I can if you would like.

Q. All right I would like it very much, just tell us and tell us in the order in which it is done.

A. First of course you know the meter is stored in this room. Then if you do not have a public tester or inspector and if you have any doubt about the meter being properly tested where it was bought or about its being possibly thrown out of adjustment on the way you test it. If this test comes out all right your head of the meter department, whoever he is, has a card, he also has a card catalogue. The card slips into a place prepared for it on the meter being properly marked so it can always be identified by anybody that takes it out. Now if you want to use the old fashioned lead connections there is a certain amount of soldering has to be done in making lead connections or put it on the shelf. The shelf stands like that, is

fastened in the cellar and has side pieces here holding it up against the cellar wall. Of late years, it is a little risky, but of late years some prefer to bring the wrought iron service in and put in the necessary bends and union joints and hang the meter by the inlet and outlet right over the shelf or on the shelf. If that is not done carefully and careful not to get the meter out of level you might strain it. Reading of the meter is taken in the ordinary meter book. When that is done it is turned over to the ordinary inspector and the stop cock is turned on and I presume you are through with the meter until you bring it for repairs I think that is the history of it.

2749 Q. What material is furnished—you have a stop cock?

A. Meter cock you mean.

Q. Yes, meter cock, I think you called it stop cock a minute ago, brackets and shelf?

A. There is no brackets just a wood shelf.

Q. What does the shelf stand on?

A. It is on the wall like that and a piece comes down here and a piece comes down here and fastens to the wall. That is the cheapest thing you could get.

Q. What else, how much pipe and that sort of thing.

A. As I have told you, you have not told me whether you use lead or whether you use—

Q. I am getting at what you used in making the estimate.

A. I should use the union couplings, union joints you know.

Q. What do you have to furnish them?

A. You carry your service around and carry it up along the side of the shelf on each side so it is about ready for your meter, you have your meter cock there and stick that in. That is about it. That generally comes in on the service, come around and have another man set the meter.

Q. You put it on service?

A. Usually let it go on service.

Q. Did you let it go with the service?

A. I did let it go with the service in this case, yes.

Q. How many men do you send out to set a meter, one or two?

A. It is a horse and wagon and a boy and a man and a bunch of tools.

Q. You have allowed us for this material and labor 50 cents?

A. I didn't say anything about the labor.

Q. Well isn't that in the setting?

A. No, that is in the 12½ per cent. 50 cents is getting it out there

2750 Q. Then this 12½ per cent is not overhead charges?

A. I told you I didn't know; maybe I had used an incorrect phrase. It includes none of the president's salary or anything of that sort.

Q. Have you figured your overhead on this same basis on the other items that is have it include part of the actual cost of doing the work?

A. What do you mean by other items?

Q. The other items in the inventory where you use 12½ per cent overhead.

A. No, done it the other way, you have an overhead very carefully gotten out.

Q. Now after you have gotten this meter in you depreciated it 33½ per cent, in parenthesis here two to three years' use?

A. Yes, sir.

Q. That cuts it down to what?

A. That cuts off about one third of it, and cuts it down a total of \$141,713?

Q. What is the average life of the meter?

A. A meter that is not looked after carefully—

Q. No, a meter that is looked after carefully?

A. Well that depends, the more carefully you look after a meter the longer you can keep it in good working order.

Q. Did you assume this well managed company did not look after the meters?

A. I don't know. I have no knowledge of the details of their meter department, I merely glanced through it.

Q. I didn't ask you, your knowledge, I asked you whether for the purpose of giving the depreciation without knowledge you simply took it for granted that they did not look after their meters?

2751 A. No, I thought they looked after them pretty well.

Q. One of the items which you referred to yesterday where you said they spent too much money and then afterwards concluded they did not was the meter repairs wasn't it, and you said that was one item where the expenses had been going up?

A. I think I excepted meter repairs as not unduly abnormal while all of the other repairs for 1910 were strikingly abnormal.

Q. You were disposed to condemn them without first inquiring. I will pass that though. Assuming that these meters are kept in good repair what would be their average life?

A. I would have to find out first about how often they take them out and look them over and replace them, dip them if you please to put it that way.

Q. What average life did you take in getting at your depreciation here?

A. Why about seven years without paying much attention to repairs merely putting it in that line.

Q. In other words you assumed that the meters were just simply put in place and not kept up in order to get your life of the meters for the purpose of your depreciation here?

A. No, a little hard to put my impression in regard to that matter in words. I assumed that the meters were very well taken care of from the looks of things and I assumed too that notwithstanding that fact that a meter was something which had continued movement in it which had diaphragms in it which would stiffen and harden and it had moving valves and parts on the top which would probably wear a certain amount, no matter how good your repairs were or how careful you were of them and by the time a meter was about seven years old it was ready for what they call a thorough

2752 overhauling in which the records were quite costly. Now on the other hand, if that was not the case and everything was taken care of and watched closely fixed promptly then the probabilities are that the life of the meters was so considerably more than seven years and that consequently the age of the meters would go up as well. I did this and left it as it was without revision after having had an opportunity to carefully read Exhibit 8 which is the basis of all the work presented by the engineers here furnished by some person who knows the figures.

Q. It is customary for gas companies to take meters in and adjust them periodically isn't it and make any repairs that is necessary?

A. It certainly ought to be done.

Q. That is customary isn't it?

A. No, I would not say that but among all good companies and I should fancy here it was done.

Q. It is something that is done in all companies that are properly managed isn't it so far as your knowledge goes?

A. Yes, so far as I know.

Q. Now this company here takes its meters at least once in three years and tests them and overhauls them and if they need any repairs makes them. Would that change your inference as to the probable age of the meters or as to whether they had depreciated 33 1/3 per cent in from two to three years.

A. I should certainly increase the life of them.

Q. I said age, I meant life?

A. Unfortunately their Exhibit 8 as to age is I think somewhere about eight years so any opinion I might give you now would not be unbiased and I understand that you claim in No. 8 that the life of a meter is about 25 years.

2753 Q. I don't remember.

A. That is what Exhibit 8 and also all reports of engineers, and this Exhibit 8 came from Philadelphia or some unknown person. I should not think that the ratio of depreciation or percentage of depreciation would be much affected, you get a greater life and you get a greater age out of your meters as you get a greater life.

Q. You then would not change your depreciation whether the life was seven years or twenty.

A. I tried above all things to assure you it was a matter of judgment and opinion and I don't think there is any necessity now of changing it, but I might under different circumstances make a widely different depreciation.

Q. Now then let's get back to this service and find out where you put in that dollar for the meter cock. That is section 77, you have given your cost of your services detailed there, now where is it?

A. 80 feet multiplied by four cents gives \$3.20 it is somewhere in there.

Q. Price per foot you have given as wrought iron, it is not in there?

A. No.

— Then comes carting, fittings and miscellaneous, is it in that?

A. Yes, it is in that \$3.20.

Q. I didn't ask you about the \$3.20, is it in the carting, fittings and miscellaneous?

A. Yes, sir.

Q. Is it in that item?

A. In that item.

Q. That you have at four cents a foot?

2754 A. Yes, sir.

Q. And there are 80 feet, that gives you \$3.20?

A. Yes, sir.

Q. Now \$1.00 of that is for the meter cock?

A. Something about that price, a meter cock is not necessarily just \$1.00.

Q. It may be more I suppose.

A. May be more, may be less I don't know the recent prices.

Q. What does miscellaneous cover?

A. Just what I said there.

Q. That must cover the pipe laying must it not?

A. Ditching at ten cents, if a man picks up the pipe like that and throw it in and couple it, might throw it into the ditch.

Q. Your ditching is exactly what you use the same amount for ditching without any pipe laying.

A. I hardly know, the difference in mains is so great, some men ditch and screw the pipe in and get away with the thing before another man would get the ditch finished. It is always a rough average.

Q. How closely then ought honest competent engineers, how close to each other ought honest competent, experienced engineers get in their estimate upon the value of such a plan as this suppose they are independent estimates?

Objected to as incompetent, the form in which the question is asked.

COURT: I don't think that is a proper question.

Mr. GUERNSEY: I think it is proper but I can get at it in another way.

Q. You say here in your report y-at where you have the details from which to make an estimate given fully it is unnecessary to include any item for omissions or contingencies, things of that kind or any considerable item. Now will competent and experience- and honest engineers making an estimate such as this come within say ten per cent of each other?

2755

Objected to as incompetent, not proper cross examination.

A. I can't answer you.

Q. Then unless competent, experienced and honest engineers would reach substantially the same result, would it not be necessary to include something to cover this matter of contingencies and omissions and differences of opinion, things of that kind?

Same objections.

A. In the matter of a preliminary estimate where the question of a man's foresight or man's memory, of a man's experience which

might be said ought to be more or less independent of his honesty, it is quite possible that just in proportion to lack of experience and lack of thoroughness and lack of memory or of foresight the percentage for the probable omissions should be increased that should be necessary and every man usually marks—if my experience of 40 years is worth anything—the amount of his lack of confidence in his own argument. The more inexperienced an engineer feels himself to be the higher he runs up all these overhead charges.

Q. It is something like a dwelling house where you have everything covered by your plans and specifications it is necessary to add a percentage to cover contingencies.

A. In preliminary estimates.

Q. In any estimate either made by the bidder or made by the architect or made by the engineer if you please to cover probably cost of building.

Q. Do you refer to an estimate of a building built and in position and open to examination at every point?

Q. I refer to an estimate of the cost of building a building.

A. Ahead of its being built.

Q. I don't care whether before or after it is done?

A. Before a building is built and while simply a matter in the mind of the architect or engineer or contractor it is necessary and proper that a considerable allowance, we will say of 15 or more per cent should be made, I am giving merely my opinion, for overhead charges and contingencies and omissions and all of the various points even in the best of work by the most experienced men. I will say just such men as William Farmer of whom I have spoken as highly as I know how. After the work is done—

Court: You have explained that to us.

Q. Then on your theory your estimate of that it would cost to reproduce this plant would be less than what you would estimate of the cost of building it if it had not been built by the difference in this item.

Mr. BRENNAN: It seems to us he has explained his theory very fully it is a mere repetition.

(Question withdrawn.)

Q. If I understand you the result of what you say is that if we had the plans and specifications of this plant and you were estimating what it would cost us to build it this amount would be greater by what you would add on account of these contingencies than the amount which you would estimate now is necessary to reproduce it?

Same objection.

A. It would not be—probably would be less because it would be impossible for any living engineer to anticipate the enormous detail of your inventory of November 1, 1910.

2757 Q. Well could you build any of these houses without having—could you let the contract for any building without having as much detail as we have here?

A. Of course I had no opportunities to see your contracts, but I should consider it very extraordinary if the specifications and drawings approach even in a remote degree the exhaustive list and work which has been done on your inventory list.

Q. You would expect drawings that showed accurately the dimensions wouldn't you if you were going to let a contract for a building, you would expect that?

A. Yes, theoretically.

Q. You would expect these drawings to show the openings, windows and doors of various styles in the building wouldn't you?

A. Yes, sir.

Q. You would expect the drawings and specifications to show the materials used wouldn't you?

A. Yes, sir.

Q. And you would expect the specifications to go further and specify the kind of brick, kind of mortar and things like that.

A. Yes, sir.

Q. Now then do you think it would be possible for us to get bids on machinery in place without describing it with accuracy or in detail to complete such a plant as this?

A. Most of your machinery has probably been bought simply as of a given capacity without any accurate drawings or specifications being made by the engineers of this company.

Q. That is true and you do not find drawings or specifications for pumps or generators or boilers or engines in this inventory do you?

2758 A. No.

Q. Now then in what particular is the description of the machinery here more specific than it would have to be to get intelligent bids?

A. Because you have not taken into consideration the matter of human fallibility to a time certain and there would be omissions and alterations, perhaps large changes made either during the progress of the building of this estimation or within a period of a few years after its starting *it* merely as a matter of convenience.

Q. So if we were to reproduce this plant we would have to incur all these contingent expenses if we were to build a new plant here?

A. You use the phrase, reproduce this plant.

Q. Yes, by building a new plant.

A. Well do you mean having a plant being equal in capacity or simply it should be a matter of brick and mortar and iron photograph of what you have down there.

Q. I mean the latter.

A. Well in that case I presume you could come very close indeed to it without any particular allowance, I should say ten or 12½ per cent for overhead charges.

Q. You would allow us for building new works ten or fifteen per cent for contingencies and for reproducing this allow us about 20 I understand?

A. No, I said about ten to 12½ per cent.

Q. Don't that cover interest and taxes and a lot of other things?

A. No, for reproducing it you would have interest and taxes just as much.

Q. I wanted you to give me what the actual contingencies were, what you allow us for contingencies?

A. I will look it up.

2759 Q. Don't allow us anything do you in your 12½ per cent, see the top of page 10?

A. Yes, I make you quite an allowance for contingencies there in general management.

Q. You state with reference to general management in the preceding page that it covers these organization expenses don't you?

A. In order to be liberal I allow cost of board of directors, legal advice at its actual cost, drawing and supervisions of four per cent.

Q. That don't say contingencies does it?

A. It involves very much of contingencies for management.

Q. Then you didn't mean what you said when you said four per cent on account of these general expenses and organization expenses?

A. Well I may have been polite about it.

Q. That is also inaccurate. You say here on page 9 it does not appear to be the custom in any community to tax unfinished buildings or unfinished machinery. Do you know as a matter of fact the assessor goes around in Des Moines and does collect even unfinished small residences and check them?

Objected to as immaterial and irrelevant because it does not apply to a concern of this kind what the assessor may do with regard to residences or dwellings?

A. I am not posted.

Q. So as to getting your taxes down as low as you put them you had to assume that the property would not in fact be taxed?

A. The books are the best evidence always, if they are taxed they could be shown, but I don't know. I did the best I could.

Q. You assumed that the property would not be taxed?

A. I understood that the land would be taxed.

2760 Q. That is all the taxes you charge in there?

A. I allowed a margin to pay some taxes on finished buildings, if I had not I would not have put 2 per cent on. In other words I put two cent, it was very close to 2¼ on to take care of any buildings which might be taxed during the last year of the year and a half.

Q. Now you put drawings and supervision at 2 per cent.

A. Yes, sir.

Q. The minimum engineering fee that is charged under like circumstances is five isn't it?

A. It is not.

Q. Give us an instance of any engineer within the last five years charging for preparing designs and for supervising the erection of a gas plant less than five per cent.

A. The St. Louis——

Q. No, I ask for the last five years?

A. This happened within the last year. The St. Louis engineering club, if I remember rightly in the engineering news met together and passed a set of rules with regard to prices for their work, and if I remember rightly they mentioned five per cent as the top price and then scaled down in proportion to the size of the work for instance, where an engineer probably would have to handle to the amount of about a million dollars in the work here, something of that sort perhaps 750,000 if he was designing it, give him one per cent for the drawing, \$7,500——

Mr. GUERNSEY: I move to strike out the answer as not responsive.

Q. (Question read.)

A. I can't name specific instances.

Q. Do you know anything about what engineers charge for work of this —.

A. I do.

2761 Q. Tell us a specific instance within the last five years that you know about?

Mr. BYERS: I submit that has been answered, it is not important anyway, the question is, what it is worth.

A. I know they are very glad to do work less than five per cent.

Mr. GUERNSEY: I move to strike the answer as not responsive and ask to have the question read to the witness.

(Question read.)

A. Have to give me a little time to look up memoranda on the matter and in the meantime I will tell you I can't recall any.

Q. Now you put your interest down to $4\frac{1}{2}$ per cent if I understand you correctly on the theory that payments will be deferred?

A. I did.

Q. Did you suppose that the manufacturer, or contractor is going to carry the company without charging for it?

A. He gets his money in the contract price.

Q. But do you think that if you defer the payments that the interest won't be in there?

A. Very probably not.

Q. Probably not.

A. Yes, sir.

Q. You figure that the manufacturer and contractor don't know enough to know that somebody is paying that interest and don't know enough to take it into account in making his price.

Mr. BYERS: That is simply argumentative.

A. I gave you prices which the manufacturer would be very glad to get at the time when the contract is finished and therefore the company would hardly pay interest on it unless they borrowed the money.

Q. Now where do you cover here in your contingencies
2762 things like insurance and personal injury and things of that kind?

A. Again I shall have to refer you to general management.

Q. Can you give us the total amount that you have allowed on account of overhead charges?

A. No, I didn't pick it out.

Q. Taking your revision of your statement as to meters, it runs less than \$51,000 on the total job don't it?

A. I just told you I didn't pick it out.

Q. Who gave you your figures on the cost of pipe laying in the yard?

A. Result of my own computations.

Q. Turn to page 80 for a moment. Have you in ascertaining your annual depreciation, have you figured meters at the rate of 15 per cent on the structural cost per annum?

A. Yes, sir; shown here seven years.

Q. And while you were taking your residual depreciation of six cents, when you were getting it here to get your computation on this page, it shows a residual depreciation of 8.17 don't it per thousand?

A. Yes, sir.

Q. Now just for fun I would like to get from this page your total depreciation that you charge for a year including both kinds?

A. That is only a rough check.

Q. The page is headed residual depreciation for one year?

A. Yes, sir.

Q. Computed for one year.

A. Yes, sir; and the bottom of that the following 6 per cent depreciation derives from larger quantities and longer period is a more correct approximation.

Q. You have as depreciation \$12,445.77, that is without figuring your repairs off?

2763 A. Yes, sir.

Q. Then your depreciation on house services and lamp post services of \$20,536.18?

A. Yes, sir.

Q. And then depreciation on meters of \$31,885.50?

A. Yes, sir.

Q. So to get the total depreciation which you figure we should have to add these together shouldn't we?

A. Yes, and then subtract the appreciation.

Q. The appreciation you deduct, but it does not affect the depreciation that actually takes place, simply affects your balance don't it?

A. It affects the amount of total depreciation, residual depreciation purely a commercial matter.

Q. So you get a total of \$65,000 you figure the plant will depreciate per annum. Then cutting out part of that for repairs you have for residual depreciation, you leave 2 cents and a fraction per thousand without taking the correction?

A. 63,000 less 7, 57,000 less the repairs.

Q. No, your total depreciation you figure here is just under \$65,000 isn't it, \$64,867.45, about 65,000 on three matters, house services and the yard structures and buildings and meters, if you take off repairs you get residual depreciation?

A. And if you take off the appreciation of the land you get what might be called the residual commercial result which is about \$43,162.

Q. And getting back to your total you figure a total depreciation there of about 5 per cent on your present value of the plant don't you, 5 per cent on your \$1,400,000 would be \$70,000 wouldn't it?

A. Well you might average it so in that way.

Q. Well that is a fact isn't it?

2764 A. It is a little less than five per cent but that is depreciation without repairs you understand.

Q. I understand. We charge part of that away to repairs and part of it not. Now in your earnings that you gave us, charged us with you included our earnings from Valley Junction didn't you?

A. What page if you please?

Q. Well in making your figures here what our earnings were and what the net return would be.

A. On what page if you please.

Q. Wherever you did that in your report?

A. As far as I could I used 528 million instead of 531 million in 1910.

Q. Well take your page 85 where you estimate the receipts for five years there?

A. The accountants advised me the gas that is sold at Valley Junction and to the city of Des Moines.

Q. You didn't take into account the investment outside of the city limites did you?

A. I did not. And it made no difference whether I did or not.

Q. What do you mean by that?

A. It is a question of operating cash cost for gas.

Q. But you also get a question of return back here, don't you?

A. Yes, but that is return for Des Moines by special request of the company.

Q. It excludes the Valley Junction earnings does it?

A. The Valley Junction outfit or inventory I find a statement in which you have cut it out altogether from your inventory. It was excluded by the company and so of course I let it go. Now when you come to the question of putting in coal and oil to make gas and averaging up a price as the result of that it would be rather
2765 unfair to leave out Valley Junction because you could not separate the coal or coke or oil that makes the gas for Valley Junction from the coal or coke or oil that makes the gas for Des Moines, so it is better to charge the sum total to the gas sales for the two places and divide it into calculations for the two places and also into operating expenses of the two places.

Q. Also figure it as return on the investment in Des Moines alone?

A. No, the operating cost is based on the cash that goes out and on the depreciation that occurs per thousand cubic feet of sales.

Q. The Valley Junction gas is sold at \$1.50 isn't it?

A. I don't know about that.

Q. Why didn't you just figure the expense of the additional gas that goes to Valley Junction at the expense of the oil and fuel the way you figure up the additional expense of this new 60,000,000 we are going to sell?

A. Because that was not what might be called—

Q. It was not the right way to figure it was it?

A. I don't know how to phrase it but it was not a thing that was temporary and impending, of course this 60 million you speak of will soon be reached, you will have more apparatus then, you will have to add on to the old plant again.

Q. Now then on page 89 here in giving the per capita sales, you include Valley Junction as well as Des Moines don't you?

A. I have no means of separating the gas sold to Des Moines.

Q. And these gentlemen you remember, exhibited a sheet of sales in Des Moines and sales in Valley Junction?

A. I was not in the court room, away every day and hard at work on what I had to do myself.

Q. You didn't ask the city's accountants to give you that 2766 information?

A. I don't recall that I did. It was not a matter—please recollect one thing when we get per capita sales it is nothing more nor less than rough irregular quantities, it shows a tendency of growth if you choose to call it so but it is hard to measure and certainly I don't claim to measure it regularly at all only as a tendency of growth.

Q. I have here Professor, a table that has been made up showing Lawrence, Cambridge, Lowell, New Bedford and Springfield from the Massachusetts reports showing as to each of the years 1901 to 1910 inclusive as to each town, the average rate per thousand of population as given in these reports which you will observe runs uniformly at five year periods, the total sales of gas, the sales per capita the total meters, the sales per meter, the population per meter, the total miles of main and the works' daily capacity together with the per cent of increase in some of these amounts as we go along. Now I don't want to take the time to ask you to make these computations here, but will you verify these tables for us so there may be no question about their correctness as showing the actual facts as to the sales of gas in the particular cities in Massachusetts in connection with the change in the prices?

A. 1901 to 1910, I have but a few copies I might go back a year or two and be glad to do it because I always welcome any additional information on the subject.

Q. We will furnish you the copies of the reports that you have not of the Massachusetts commission if you need them.

A. It would occupy quite a considerable length of time to carefully verify this.

Mr. GUERNSEY: It seemed to us in we are to get any intelligent

results from Massachusetts as to whether a decrease in price meant
an increase in sales without an increase in plant it would be
2767 necessary to run through the history of a single city and we
took four or five cities nearest to Des Moines in size and
having about the same price and we would like to have the witness
verify this so there may be no dispute about its accuracy.

MR. BRENNAN: If they have an exhibit that they want to offer in
evidence of course it seems to us it would be time enough when it
is offered.

COURT: If the witness is willing to do it I have no objection.

MR. GUERNSEY: I would like to have the witness do it so we will
have no dispute about its correctness, that is the only object we have
in having it checked. Are you willing to do it?

A. So far as I have time I would be glad to.

(Table marked Exhibit 44 and 44-A.)

MR. GUERNSEY: I think your honor that is all with this witness
except when we get this letter of February we would like to ask some
questions about that. We may have inadvertently overlooked some-
thing.

MR. GUERNSEY: We move to strike out Exhibit 23 and make the
same motion as to each paragraph of it because it appears first that
it is not based upon the experience or knowledge or information of
the witness. Second, it appears that it is hearsay. Third, that it
appears that the prices are not prices which the witness from his
experience and knowledge knows are current prices in the city of
Des Moines and finally because it does not purport to be an estimate
of the value of the property in controversy.

Redirect examination by R. O. BRENNAN, Esq.:

Q. Now Professor Marks, you were asked by counsel with regard to
these omissions. I will ask you if you were going to buy a
2768 stock of goods and the merchant or owner from whom you
were purchasing there goods had a complete and detailed in-
ventory of the stock which you were about to purchase if you would
expect to have him add to that inventory 8 per cent to cover omis-
sions?

Objected to as irrelevant, immaterial because not predicated at
all on similar facts and also as argumentative.

A. I should not.

Q. Where you have as you have in this case a complete detailed
itemized inventory of the property which you were called upon to ap-
praise or value you do not feel it necessary to add anything for
omissions?

A. I have not in this case.

Q. And the reason you have not done so is because you have as-
sumed that all of the property is contained in the inventory Exhibit
15?

A. Because so far as I have gone into this matter I have not been
able to find any omissions.

Q. Now there is another matter to which I want to call your at-
tention at the bottom of page 87 of your report Exhibit 23, you

suggest a sliding scale as the fairest method as between the purchaser and consumer in regulating prices of gas and I note that you use this language but no suggestion of a sliding sale has been made in the ordinance the Des Moines City Council passed December 27, 1910. Referring to the above what qualification do you make as to the statement regarding the sliding scale?

A. I should have made the qualification that it would be impossible for the city council of Des Moines or any other city council to pass a proper sliding scale ordinance without having a complete present valuation of the company's works and a complete investigation and determination of the cost of supplying gas at the
2769 consumer's meter and further fixing upon some rate of profit or of dividends whatever you choose to call it as being fair and reasonable and from the cost of gas and the profit fixing a standard price for gas.

COURT: Can there be a sliding scale under our statute?

Mr. BRENNAN: He has referred to it in his report and I imagine he had the Massachusetts method in mind when he introduced it in the report and I simply wanted to have him explain upon what theory a sliding scale might be introduced, what was essential.

Q. So if I understand you rightly even a sliding scale could not be safely introduced in an ordinance prescribing rates with any fairness to the consumer as well as the producer without an appraisal and valuation of the plant should be made in advance of the passing of the ordinance.

A. That is correct, it should be so.

Q. Now did the prices secured by Mr. Dobson and Mr. Hasek commend themselves to you as to being reasonable prices and charges for materials to be used in your report Exhibit 23?

A. Wherever the prices secured by my assistants were brought in I gave them careful consideration and used them when I found them to be reasonable. I had occasion to compare these very carefully with them and with others, of course I used no figures that did not commend themselves to me personally as being reasonable and right.

Q. Now did you in the use of the unit prices which you have introduced or employed in connection with your report, Exhibit 23, rely upon the judgment of either Mr. Dobson or Mr. Hasek with reference to the prices which you have used in your report or are the prices used by you in your report based upon your own independent
judgment?

2770 A. In every case upon my own independent judgment, but it is quite impossible for one man pressed for time as I was to do anything else than avail himself of assistance where he could get it and information from where he could get it in every direction.

Q. You have referred to the number of brick and have referred to this model showing the number of brick to a cubic foot. Was that suggested to you by Mr. Dobson or Mr. Hasek or anyone else?

A. It was not. It was wholly my own idea.

Q. In making your valuation of the property of the Des Moines

Gas Company as shown by your report, Exhibit 23, were you influenced or controlled in any way by anything which appears in the reports of Mr. Lea or Mr. Beahr or Mr. Hagenah, or any of the engineers who testified on behalf of the complainant in this case, or Mr. Randolph, I forgot him.

A. Of course I didn't hear all of them only portions of each one I think except the first. If by the word influenced you mean made use of any of their reports I would say most positively that I had no use for them and made no use of them.

Q. In other words, Exhibit 23 represents your independent judgment and valuation of the property of the Des Moines Gas Company?

A. It does as near as I could make up my mind.

Q. In answer to one of Mr. Guernsey's questions with regard to your experience with a low carburetted water gas system you mentioned some experience which you had in an experimental plant near the city of Philadelphia. I wish you would tell us what that experience was.

A. When Prof. Lowe had just begun his work and had gotten far enough along to make gas and put it in the holder, I was sent by the president of the Brooklyn Gas Light Co. to Manayunk, Philadelphia for the purpose of assisting Prof. Lowe and also of
2771 making a record, that is keeping a record of what he was doing and how he did it and reporting orally with memorandum to them. I was engaged for quite awhile during the operation of these little generators and of course there learned the principles of operation which Prof. Lowe was trying to carry into practical effect in a large way. Subsequently some time in the neighborhood of 1900 at Fostoria, Ohio, it was necessary for me to get this apparatus into operation on a practical scale it was either 6 or 6½ feet generators I forget which and as it is difficult in a small town to get anybody to operate—experienced in the carburetted water gas process for some days and a portion of each day I personally operated the low carburetted water gas process making the gas and getting it into the holder so that I can feel that from beginning up to date almost so far as the low carburetted water gas process is concerned I had not only a history, but a very practical apprenticeship of the business.

Q. Do you recall whether any information which you secured at that time for the persons whom you represented was acted upon by them in making investments?

Objected to as not proper redirect examination.

A. The information was reduced to the form of memoranda and subsequently used in considering purchase of gas works in which these gentlemen who were men of very large means, millionaires and multimillionaires, were interested all over the United States.

Q. Now at the risk of emphasizing Fostoria, I want to venture the question and have you tell the Master just what services you performed in and about the gas works at Fostoria?

A. Going to Fostoria, Ohio, a town of some 15 or 16,000 inhabitants, I found there a joint gas and electric light works. I have been

in electricity from its very outset working with Edison in
2772 1878 and so the rehabilitation—the works I should say were
in very bad shape and in getting the rehabilitation of the
street lights practically the matter was disposed of and I turned my
attention to the gas works which was also in the same building. I
found that the benches and retorts there were in such shape they
had to be rebuilt, I refer to coal gas retorts where gas is made by
the carbonization of hard coal. In order to be able to rebuild the
coal gas works it was necessary to get an incomplete low carburetted
water gas apparatus into practical operation. There was no one there
knew how to run it and so with the aid of a man who was a com-
mon laborer and inexperienced in the matter the small low car-
buretted water gas business was started in and when it was running
right the coal gas benches were allowed to die out and the benches
were renewed I think under a contract with the Russell Bros., or
Russell, St. Louis men I remember making a contract with them, I
have forgotten who they were excepting there was a Russell in it.
After the coal gas benches were again put in proper shape, generator
benches, it is a little more economical to make coal gas because of the
residuals and so the carburetted water gas plant was kept as very
frequently is done, after putting it in good shape for its run, kept
in good shape for the purpose of meeting any emergency that might
arise in the way of extra demand for gas.

COURT: If I understood you right you did not use the crude oil
there?

A. No, the difficulty of that was this, I was right there in the
oil country you know and the moment a man strikes oil there, he
calls on the pipe line people to run a line to him from the tank to
his small oil tank to run to their big tanks and they found out with-
out anything particular being said that if they sold crude
2773 oil to me they could not get a pipe line run in if they struck
oil and we got from the Standard Oil people, the sold us
what they called gas oil which is a heavy distillate, heavier than
kerosene at between 3 and 4 cents a gallon in carload lots.

Q. State in what manner they measured the gas used by the
consumer?

A. Through an ordinary meter, station meter and through an
ordinary dry meter.

Q. Installed at the residence or place of the consumer?

A. That they installed at the residence yes.

Q. You were actively engaged at Fostoria in superintending the
works and seeing to it that the service was performed?

A. It was a small works and it was necessary that somebody should
actually do the work and often with my own hands I have made gas
for them, made gas with my own hands and I have run the electric
machinery with my hands.

Q. I believe counsel asked you something about your inspection
of the monitor supports on one of the buildings of the Des Moines
Gas Company and you stated that the employes of the company re-
fused or did not at least give you any information such as you
asked. Now I wish you would tell the Master more fully just how

they did act toward you during the times you were making your investigations?

A. Whenever I have been to the works the first thing to do was to obtain a pass from the general office located on Seventh street. Having obtained the pass from the general office I generally fix the time when I would be there at the works and reaching the works I was usually met by two men whose business it was to accompany me. If I asked any question beyond merely where a thing was there was no reply, they were dumb. A good many times I found them whenever I made a note busily engaged in looking over my
2774 shoulder and reading it, in fact in one case one of their representatives having failed to read over my shoulder asked me what I had put down in my note book. That is the only time they manifested any desire or interest in the way of talking, to talk or ask questions or to answer them. There was nothing more than the mere pointing out of whatever I asked for. If I desired to have any explanation of any sort or kind, I did not get it, might as well have been a deaf and dumb asylum. However, it did not bother me very much because I have been in a great many gas works.

COURT: Find them all alike?

A. Pretty much all alike there is not very much difference in them.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

2775

Wednesday Forenoon Session.

AUGUST 23, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

WILLIAM D. MARKS, continuing his re-direct examination, examined by R. O. Brennan, Esq., testified:

Q. Now, Professor, in answer to one of the questions propounded to you on cross-examination you started to tell of some experience which you gained in connection with some work you did for Thomas A. Edison, concrete work, I think, and you were not permitted to finish your answer. I wish you would tell the Master in a general way your experience in that connection.

A. In 1887 I was appointed through the influence of Thomas A. Edison engineer in chief for the Philadelphia Electric Light Company with instructions to build a 10,000 horse power station, the idea being at that time to build the largest station in the world for the Edison Company in Philadelphia. There were no precedents for such stations. It was necessary for me to begin at the foundation with my work and the foundation plate for the station there is something over one hundred feet high and a plate of concrete one hundred feet long, seventy feet wide and ranging from four to ten feet in thickness, according to the condition of the earth underneath the foundation. This plate of concrete at that time was considered a

very great undertaking. It was necessary for me to work out the methods of making concrete, experimental, and then to build the plate, which I did. It was also necessary for me to work out a station having some eight floors on it and carrying about four million pounds of machinery and its own weight of course, 2776 iron work to the floor for each floor. The station was built and is standing today. The important point at that time, in 1887, was that concrete was practically in a large way very little known in this country and it was considered quite an innovation—I mean on a large scale—so I think I can say that some twenty years ahead of the general use of concrete this large work had been done. The floors themselves where this heavy machinery lay were on steel beams—

The MASTER: Steel?

A. Steel beams and arch and concrete so as to give them very great weight as well as very great strength on account of the vibration received. That too was considered at that time an innovation rather a daring one. In 1889, or by 1889 I had become unofficially consulting engineer for the many stations that were in contemplation or in actual construction for the Edison system throughout the United States and in the case of the larger ones was usually requested to personally investigate the matter and did so in a number of cases, and in every case that I recall there was more or less concrete work there. I think this will straighten out for you any doubt that may have arisen in your mind as to whether or no I am practically familiar with concrete.

Q. Did that work you have described come under your personal supervision?

A. Every bit of it.

The MASTER: That is, you superintended the construction of it as well as designed it?

A. I felt so anxious about it, you may say a good portion of my time was spent right along side the reamers and gangs and nobody could get closer to the work without doing the actual work 2777 with its own hands.

Q. And what did you have to do with the designing of the work?

A. I designed every bit of the Philadelphia station, from the first bed of concrete through to the last connection, you might say almost.

Q. Have you in connection with your work as a consulting engineer made valuations at any time for investors in gas properties and other public utilities?

A. From 1876 to 1887, when the whole of my time was absorbed by this electrical work I have just mentioned, I was Professor in the University of Pennsylvania and practically all my leisure was absorbed, as I have stated before, by a certain syndicate of gentlemen who at that time were largely interested not only in Brooklyn and New York, but also in many cities of the United States, and it was necessary in serving their purpose that I should not only make a physical examination on the spot with particular regard to the condition of the work, but also that I should at times go very carefully

into the finances of the work, making careful computations of the profit earning capacity. These reports were very numerous, sometimes several in a year, and so far as I was concerned disappeared, being wholly for confidential purposes and furnishing data on which they acted in purchasing gas works.

Q. Now, in your report on valuation, Exhibit 23, counsel asked you if you allowed anything for clearing the site and staking out buildings. Is that item, or rather are these items included in your report, and if so, please state where?

A. The clearing of the site and staking out appears to me a very small matter and fully covered by the 12½ per cent overhead charges.

2778 Q. Now your attention has been called to the sketches referred to as Complainant's Exhibit 16, and I noticed in testifying with reference thereto you consulted a blueprint. I want to ask you if you were furnished with a copy of Complainant's Exhibit 16, or are the blue prints to which you have referred the only copies that have been furnished you?

A. The blue prints were the only thing I have been able to examine and the only thing furnished to me.

Q. Have you made an examination or a comparison between Exhibit 16 and the blue prints which you have used in your report and in giving your testimony for the purpose of ascertaining whether the blue prints are a true and correct copy of the sketches in Exhibit 16?

A. I attempted to do so but was refused an opportunity so to do by counsel for complainant.

Q. The question is whether you have?

A. I have not.

Q. Now, Professor Marks, would there be any substantial difference in the value of complainant's property on the 1st day of January 1911, as compared with November 1st, 1910, the latter date being the date used in Complainant's Exhibit 15?

A. There would not be if the same items were taken as were furnished to me in the inventory list—none that could be measured.

Q. Is your valuation of the property of the complainant at the manufacturing works, that is the buildings, machinery and holders, the cost of duplication for November 1, 1910 on the basis of the prices then prevailing?

A. It so happened that on the average the prices of duplication about the 1st of 1911 are the prices which were used for the purpose of obtaining the structural cost.

2779 Q. And what would you say as to the meters?

A. In what respect?

Q. In the same respect, whether or not your valuation which you have placed upon them would be on the basis of the prices then prevailing as of January 1, 1911 on the duplication theory?

A. So far as I have been able to learn the reduplication of the meters in position on the 1st of January, 1911, is about the same or perhaps a little less as the structural cost of the meters allowed by me on the basis of 33½ per cent off.

Q. Now would the structural cost of the meters as of January 1, 1911, coincide with the structural cost as of November 1, 1910?

A. Very much the same, slight variation.

Q. In the case of mains and services, and leaving out the question of paving, how does the value reached by you compare with the value you would have reached had you assumed all the mains and services had been laid say within two years following January 1, 1911?

A. If by that you mean one large undertaking or contract, continuous, occupying two summers, I would say that the mains and the services could be put in by the company for about 15 per cent less than was actually paid for interrupted work or contracted out with the fifteen per cent profit to the contractor for about what I have estimated.

Q. What would you say about the cost of mains and services, that is, the relative cost of the mains and services in the past?

A. One moment—let me clear up the last point. When I use the word 15 per cent, I refer to 15 per cent contractor's labor and on the contractor's raw material, but not 15 per cent on the cast iron pipe and not to 15 per cent in the case of services on the wrought iron pipe.

2780 Q. The last question was, keeping in mind the structural cost of mains and services in the past, what would you say now as to the relative cost thereof?

A. As near as one can do, when one is making an appraisalment, they are identical.

Q. And would this 15 per cent which you say would be added if it were a small job, would that obtain in the case of meters and services laid in the past, where it might have been in large quantities or large jobs?

A. Wherever you can organize work—I think everybody agrees with me—that continuous work is very much reduced in cost, for many reasons. Perhaps I had better not try to go into detail. To take up the putting in of meters and services, I referred to, labor now would undoubtedly produce a very large saving, 15 per cent in the least, and in proportion to the organization a larger per cent would be quite probable.

The MASTER: But meters and services have to be put in at the time they are called for?

A. Yes.

The MASTER: The- couldn't be put in under large contracts?

A. We apparently are drifting away to the hypothetical idea of the company, for a reduplication.

Mr. BRENNAN: I was simply making that inquiry for the purpose of comparison.

Q. How much value do you give or did you give to the mains and services new by the method which you actually followed in your report Exhibit 23?

A. You mean the total cost of mains?

Q. Yes, and services.

A. The total cost of mains is about \$652,000 on which
2781 there was no depreciation allowed or taken. The total
cost—

The MASTER: That figuring as I understand it here, is where they
are laid entirely before the pavement was put down?

A. Entirely before the pavement is put down, but allowing for
the ordinary difficulties in street works, such as moving a sewer,
inlets, running under crossings, possibly running into small amounts
of macadam paving, and coming under such steam and electric
railways as would occur in a city like Cleveland or Buffalo.

Q. Do you remember the amount which you allowed for the serv-
ices house services without depreciation?

A. I don't recall the exact figure.

Q. On page 58 of the copy of your report it refers to the house
services?

A. The present value of the services is appraised by me as \$137,-
360.

Q. But I am getting at the structural cost of the services, which
would be in round numbers \$275,000, as shown by your report?

A. Yes.

Q. So that if we add that to the \$652,000 representing the struc-
tural cost of the mains, we have in round numbers \$927,000.

A. \$927,000, adding the structural cost of the mains to the struc-
tural cost of the services.

Q. If you followed the duplication theory with reference to
mains, and house services and deduct the 15 per cent off the
\$927,000, you have in round numbers about \$135,000.

A. I have not made myself clear in that matter apparently to
anybody. It would not be 15 per cent off of the cost of the cast iron
mains, and it would not be 15 per cent off of the cost of wrought
iron services, but it would be 15 per cent off of all the other cost
that occurred in laying the mains and in laying the services.

2782 I have not figured that exactly; I could figure it for you.

Q. The 15 per cent representing the figures to which I
called your attention includes of course the 15 per cent deducted
from the cost of the mains and services.

A. Yes.

Q. Now, I propounded the question so as to give you an opportu-
nity to clear up the situation with reference to that 15 per cent, so
that there would be no misunderstanding in regard to it.

A. I seem to be very unfortunate. I'll get right at it, if you
will permit me. (Witness computes.)

Q. Perhaps I can save you some of this computation—what I
was getting at is this: If we take the amount of labor involved in
the mains and services and deduct 15 per cent, as comparing it
with the duplication theory, we would find the comparison in that
way?

A. Yes. I could work it out in that way. I could give you a
few examples if you desire, to save the time of the court. For in-
stance, the four inch pipe is rated as costing 49 cents per foot, laid

down complete, without paving. In this 49 cents there is 27½ cents paid by the gas company for the cast iron mains furnished, and 2½ cents paid for the special castings, making about 30 cents paid for the cast iron mains and cast iron specials delivered by the company, leaving, 30 from 49, or 19 cents paid the contractor per foot for what he does in digging for his cast iron mains, digging the ditch and furnishing all the necessary lead, cement, oakum, labor, carting and everything of that sort and getting the pipe under ground and ready to pass gas. The 4 inch main in this case appears to be in this city of Des Moines about 573,724 feet, or something over one half of the total length of mains—970,923 feet. And I could go on in the same way with as many as you desire.

Q. No, that illustrates it, I think, very fully. You were asked about your New York appraisal. I wish you would tell the Master just about how much time you devoted to the making of that appraisal?

A. The New York appraisal included six active generating works. About four-fifth- of all the gas in 1905 used in the city of New York was carburetted water gas. The remaining one-fifth was ordinary coal gas. Besides these generating stations there are also four distributing stations. The making of this inventory was delayed by the opposition of the Consolidated Gas Company—I might perhaps more correctly say, the apparent neglect of the company than the opposition—the results were the same for a considerable length of time, and then required the utmost industry on my part to even inspect the works. The inspection of the works item by item as near as I recall, and I only recall from memory, after a number of years, occupied about six weeks. While this inspection was going on with my assistants, the classification under the head of works was daily being taken up. In reference to the identification of the various items, it was made by me personally and no one else and was very complete. It was then necessary to make the computations and comparisons, that occupied day and night work on the part of myself and on the part of a number of assistants, as near as I can recall now, seven or eight of them, and they were occupied for many months. I do not recall how many. I was fortunate in being able to obtain, not regularly, but incidentally, the appraisals of the chief engineer of New York City in gas and electricity, Charles F. Lacomb, who kindly went out independently, and occasionally with me, and examined and valued certain buildings and certain apparatus. I was also fortunate in obtaining the inventory appraisal of Mr. Thomas Rowland, a contractor of Green Point, Long Island, opposite New York, who for many years furnished the great bulk of the machinery and buildings of the various gas companies of Manhattan and New York, and from his own records was able to give the actual cost of these buildings, as you will see from my tabulations submitted here. These were all carefully put together and compared with the testimony of a Mr. Meyer of Baltimore, who was at that time the engineer, and I think also

the selling agent of a big Baltimore gas works manufacturing concern. The inventory of Mr. Meyer was not turned in in tabulated form, or I might say in a collective form, but was given through testimony item by item, so far as he went in the various items, and in the majority of cases no explanation given as to how the work was done, but merely the bald statement as being his opinion of the worth. Putting these together and comparing them was an enormous labor, but resulted in a very thorough understanding of all the reasons and facts in the valuation of these ten gas stations on the Island of Manhattan.

Q. About how much time was required by you in doing that work?

A. As I have stated, I was about six weeks in tramping through the works and seeing those things and making notes of them; I could not say it was continuous, because I had much to do and many things to think of, but it was pretty nearly, if not every day, and just in many cases all day, and just as much of every day as I could possibly get in for six weeks and that work was followed by myself and seven or eight assistants covering many months.

2785 Q. For what length of time did your services cover in the city of New York?

A. The actual services in the city of New York began on or about January 1, 1906; I was engaged in 1905, and it was officially terminated by the decision of the Supreme Court of the United States in January 1909. I do not recall the date when the decision came down, but it was in January 1909, covering a period of almost exactly three years. By the way, I should say that in addition to that my services were used in a number of adjustment- or computations in a large amount of rebates by corporation counsel. Of course I did not appear, he merely used that material. I was afterwards requested to appraise the Bronx Gas & Electric Light Company, which I think I forgot to mention.

Q. How long were you engaged in Cleveland making your investigations and appraisals of the Cleveland Gas Works?

A. I know that it practically took up nearly all the summer and part of the autumn of the year 1910.

Q. Did your work in making that appraisal require you to make a personal inspection of the works of the company?

A. In the case of Cleveland, for the three works, there was nothing whatever furnished except permission to go on the ground, and under those conditions it was necessary for me, not only to go over the works item by item, but also to supervise and complete a set of drawings of each of the works, giving all the detailed plans of the whole three works, and in addition to that a small number of sections, such as are required for estimating purposes to make this list, and then to place the valuations, doing very nearly, but not quite so liberally, the same thing as I have done here.

2786 Q. Now, Professor Marks, I want to ask you, if the estimate of depreciation used by you in your report and valuation in Exhibit 23, is reasonable and in an amount which appeals to you as a consulting engineer as being fair and just?

A. On looking back over it, I can only say it was the most honest and best thing I could do in the way of engineering and making a fair and reasonable depreciation. I took for instance such buildings as are along the northern edge of the property close to the railroad, those old buildings built in 1876—a good many people would claim that they were practically at the end of their life, but because they were used, I depreciated them as nearly and as fairly as I could, for the reason of their use; in other words, if they were not in that use, I would call them worthless; that is equally true of all other parts of the older apparatus.

Q. So that upon the whole inquiry then, you would say it was fair and just?

A. Just as fair and reasonable as anybody could make it, to do the best he could.

Q. Now, counsel called your attention to some errors in your figures indicating the population in certain cities and towns in Massachusetts, and also to the fact that some outlying districts were apparently omitted from your tables. I wish you would tell the Master whether or not such omissions would affect the results which you desired to obtain from such tables, and if they did not affect them tell the Master why?

A. The overlooking of some of the outlying suburbs, and I think one mistake in the amount of gas sold, would have no effect whatever on what was being proved by that collection of figures, for this reason, the only object of that collection of figures was to show in a general way, and not in a quantitative way that as the price of gas goes down the sales go up, after the manner of a teeter, I used the sales per capita, meaning the sales per head, simply because each and every one of these cities has a different population over the rest, and the only unit I could find that would enable a fair comparison would be the sales per capita or the sales per head of population.

Q. In that connection you used the term per capita sales instead of total sales; why do you make that distinction?

A. Going more into detail in that matter, I would say of course you know the cities have not the same population, and that the only way of comparing cities of different population is by getting the sales per unit of inhabitants. I think I should add that those sales per capita, which was a matter taken up in a paper by me, in the Progressive Age, received very careful consideration in the New England Gas Engineers' Association and resulted in a committee being appointed and that committee reported the sales per capita as being a proper basis for comparison of the various cities.

Complainant moves to strike what the committee reported as being secondary, hearsay and not competent.

Q. Now I notice also that you were careful to distinguish between meter sales and per capita sales, or total sales; what purpose did you have in distinguishing between meter sales in answering questions?

A. The question of meter sales and sales per thousand feet or per mile of main are technical questions of great importance and

necessary to the managers of the companies to know what their apparatus is costing them and how effectively it is acting
2788 and it is not an important matter to the public in general nor is it relatively near as important a matter as the revenue per capita obtained. When I say that, I wish to call your attention to the fact that the revenue per capita in the city of Des Moines in 1895 was reported by the company as being in the neighborhood of \$1.50. I looked up the exact figures yesterday but I do not recall them now; and in 1910, it was something over \$6. per capita, the revenue per capita was; so that if you take the population in 1895 and multiply it by \$1.50 you get the gross revenue of the company in 1895 per year; and if you take the population for 1910, and multiply it by \$6. or thereabouts, you would get the gross revenue of the company for the year 1910, which shows as a result of lower prices which have gone on ever since then, from my point of view and of the good service which the company is rendering, an enormous increase in the sales of this company between 1895 and 1910, a period of about 15 years.

Q. Now, I think you were asked by counsel in your cross examination if your employments have been confined to municipalities in all cases. I want to ask you if you have been consulted by others besides municipalities, for the purpose of making valuations or appraisals of gas properties or other public utilities?

A. I will answer your question without mentioning any names. You will understand that it is not fair to go into details.

Q. I don't care for the names; I want to know what the fact is as to whether you have been employed by the owners of public utilities?

A. I have been approached by the managers of the largest gas works in the United States, and I have been offered very large retainers, very large retainers, but as the condition of my work
2789 is that my reports shall always be entirely public, no reservation, of course I could not meet the conditions which would have been imposed.

Recross-examination by Mr. GUERNSEY:

Q. Referring to this last statement of yours, you do not mean the U. G. I. Company, do you?

A. I do not know. I never know where the U. G. I. is under the surface.

Q. You are not familiar with the lists of plants in which the U. G. I. Company is interested?

A. I have occasionally read over the list.

Q. How recently was it you were approached by these people.

A. If I should answer enough questions, I presume it is quite possible to locate them; so I will only say to you in one instance it was very recently; in others it was during the last few years.

Q. You are unwilling for us to know from whom you refused to accept retainers?

A. Of course, you understand perfectly well as a man of business, when one comes to you in that way, although you may not be pledged, you had better not do any talking, if you are square.

Q. So that you prefer to leave this in such a way that it is impossible to verify your statement?

A. I should insist upon so leaving it.

Q. And you are not able to say this offer of employment came from the U. G. I. Company directly or indirectly?

A. I cannot, or anybody else. I decline to deny or affirm any.

Q. What I was getting at whether you were able to tell 2790 us whether these offers of employment came from the U. G. I. Company or not?

A. My reply to that is again, as I never know where the U. G. I. is, I could not possibly say.

Q. That would mean of course that you have no affirmative evidence that it was interested?

A. I don't know where it was; that is the only way I should care to put it.

Mr. GUERNSEY: Before I forget it, I want to have this exhibit 43 marked by the reporter as Complainant's Exhibit 43.

(It is so marked)

Mr. BYERS: We do not know whether it is correct or not.

Mr. GUERNSEY: Do you want to verify it?

Mr. BYERS: Not now.

Q. Now, Professor, you said that you attempted to compare the blue prints which you had of these buildings with a copy of Exhibit 16 and were refused opportunity to do so by complainant's counsel. What you were doing as a matter of fact, was walking off with the original of that Exhibit without saying anything?

A. I asked my counsel, Mr. Brennan, whether it would be proper for me to take that exhibit for the purpose of comparing what I had, and I was told it was so proper, and I picked it up very innocently, when one of the gentlemen retained by the company seized the book and insisted I could not take it and walked off with it.

Q. You did not tell him about your conversation with Mr. Brennan?

A. Well, when one commits assault and battery——

Q. You did not tell him about your conversation with Mr. Brennan did you?

A. At that time——

Q. Yes.

2791 A. Certainly not.

Q. Counsel for the City thereupon requested this same gentleman who was one of the counsel for the complainant, to furnish the city his copy of Exhibit 16 for the uses of the city, and that was done within 24 hours from that time, and at least six weeks ago?

A. That copy never passed into my hands.

Q. I did not ask you that. It was turned over to the city for the city's use?

A. That I know nothing about.

Q. You will not say then that as a matter of fact a copy of this Exhibit 16 was not turned over to the city for the city's use within 24 hours from the incident you referred to?

A. I speak only for myself. I know nothing more than what happened then. Since then I have not had possession of that Exhibit 16.

Q. You know, don't you, as a matter of fact, that the difference between Exhibit 16 and your copy of it, so far as these plans are concerned, in your copy they are blue prints and in Exhibit 16 they are paper prints, but taken from the same drawings?

A. I do not know that.

Q. Will you say that is not true?

A. I don't know.

Q. So that you do not mean to say then that the blue prints which you have are not exact copies of what is referred to in Exhibit 16, what is contained in Exhibit 16?

A. On that point I said to you I don't know.

Q. You testified yesterday on your re-direct examination that an examination of the inventory, an investigation of the costs fixing the dividend rate and fixing the standard rate were necessary to 2792 a rate fixed upon a sliding scale, as I understood you?

A. I did.

Q. It is equally necessary to intelligently fix any rate, isn't it?

A. Yes. Pardon me for adding an explanation there, that is this, that as a matter of my own judgment I have always objected to the fixing of a rate for any more than—a single rate—for anything more than a very short time, for it appears to me that a change in the cost of raw material or productive labor would result in a change in the cost of gas and consequently might be unjust either to the company or to its consumers.

Complainant moves to strike the explanation made by the witness as irrelevant and immaterial, in view of the fact that under the law of this state a rate cannot be fixed for any specific time.

Q. Now, on cross examination, commencing on page 2386, you were asked about that, what your Exhibit 23 showed, and you were asked this question: There is one thing I want to get straightened out about your report, defendants' Exhibit 23, is that supposed to show the reproduction cost of the plant or not? And you answered: "No." That is correct, is it not?

A. That is correct.

Q. Then on page 2387 you were asked, referring to this report: "Q. Then it is not intended to show the value of the plant at this time, is it? A. At what time? Q. This time, today? A. Only in so far as the cost of materials and labor correspond with the cost of materials and labor used in gas works at the time in which these structures were put in." You so testified?

A. I did.

Q. That is correct?

A. That is correct.

2793 Q. So that if any of the items in your report Exhibit 23 happen to be the same as the corresponding items for the reproductive value of the plant, it is a mere coincidence?

A. It is.

Mr. GUERNSEY: I think that is all, except Mr. Brennan, did you get that letter of the 17th?

Mr. BRENNAN: Not yet.

Mr. GUERNSEY: There is one other question I want to ask the witness.

Q. With reference to these Massachusetts reports, in your report here, you do not claim that these figures in the report are correct, do you?

A. Not with a great degree of precision; sufficiently so for the purpose for which they are used.

Q. That is true enough, if as you said yesterday, they haven't any particular bearing in Des Moines. Referring to the first table on page 94 of your report is there any one of the figures in that table showing the sales per capita, which is correct?

A. I should say that all the figures there are near enough correct for the purpose for which they are intended.

Q. That don't answer my question. I asked you whether you say any of the figures in your columns showing the sales per capita and your average sales per capita in the first table set out on page 94 of Exhibit 23 are correct?

A. If you mean absolute correctness——

Q. I mean correct as shown, checking the source from which you take them?

A. You mean absolute correctness?

Q. I do not mean within ten decimals; I mean whether those figures are right, or within one decimal?

2794 A. I cannot alter the statement I made. If I felt the necessity of greater accuracy, I would have endeavored to obtain it; they are sufficiently accurate and correct for the purpose for which they are intended, showing the relation——

The MASTER: Are they correct?

A. Until correctness is defined, until the use of that word is defined, I cannot very well answer, although I will say they are correct enough for any use I have made of them.

The MASTER: You don't say they are absolutely correct?

A. I do not.

Q. For instance, take your last average figure, and you have 57.60 and that ought to be 63.28 ought it not?

A. I have not the last figure before me. That is correct for the purpose for which it is used. 6000 I should say would be about a fair average.

Q. Will you do this, Professor, will you give us the cities that are referred to where the average figures are taken for your per capita sales, at the \$2.25 cent rate for 1901?

A. I could not give you that without going back to my office?

Q. Will you furnish them to us later here?

A. I will be very glad to.

Q. Also the cities upon which these figures as to the \$2 rate here are based?

A. You see there are three \$2 rates, groups.

Q. Not in this same table I am talking about.

A. There is a group for 1901 and group for 1907 and for 1910.

Q. I want all of them, of course.

A. You mean the three groups?

Q. Yes.

A. I thought you had that all worked out.

2795 Q. We have it all figured out but we do not find any figures to be right, and that is why I am asking for the information, and to avoid any chance for error I would like to have you give us the cities taken in each column?

Mr. BRENNAN: That is in the table shown on page 94?

Mr. GUERNSEY: The table at the top of page 94.

Q. Will you furnish us that information?

A. I will if I can. I presume we do not substantially differ—just a fall in the price of gas will always result in increased sales of it.

Q. I am talking about these computations based on the Massachusetts reports; we get as the final result for one year's increase instead of 1.79 1.31 which is something more than 25 per cent less than your figure?

A. But you get an increase in both cases, and that is all I was trying to show you.

Q. All you claim for the figures is that they show an increase but not the amount of it?

A. Yes.

Q. Now will you furnish us this list of cities giving the list for each rate for each year, 1901, 1907, and 1910, referred to in the first table on page 94?

A. I will have it dug up if my counsel so desires, as soon as I can get access to my data.

Mr. BRENNAN:

Q. You wanted to show approximately the results of the reduction in price of gas?

A. That is all that I wished to do.

Excused.

2796 W. F. DOUTHIRT, being first duly sworn on part of defendants, examined in chief by Hon. H. W. Byers, testified:

Q. Where is your home, Mr. Douthirt?

A. In Philadelphia.

Q. And what is your business, please?

A. Secretary of the United Gas Improvement Company.

Q. How long have you been secretary of that company?

A. I think about six or seven years.

Q. Were you secretary of the company prior to 1906?

A. I was in the employ of the company prior to 1906. The date when I was elected secretary has escaped me. I think it was prior to 1906.

Q. When was that corporation organized, do you know, the United Gas Improvement Company?

Objected to as not the best evidence and incompetent on that account.

A. Well, I can only make a guess. I think it was some time prior to 1890.

Q. And what is the business of the United Gas Improvement Company?

Complainant interposes the same objection last made.

A. It operates under a lease from the municipality of Philadelphia the gas works owned by the municipality. It operates a construction department which builds water gas apparatus for any gas company in the United States who may desire to buy such apparatus from the United Gas Improvement Company. It also is a share holder in a number of gas companies and gas and electric companies and gas and electric and traction companies in different parts of the country.

2797 Q. And who is its president?

A. Thomas Dolan.

Q. What are your duties as secretary?

A. My duties as secretary are to keep the corporate records.

Q. Is that what you do do?

A. Oh, I do a good many things besides that.

Q. What other duties do you have besides keeping the corporate records?

Objected to on part of complainant as being immaterial.

A. I am a member of two or three bars and I do a good deal of legal work in connection with the company's affairs. I also have more or less to do with the accounting, and I am a member of a good many boards of directors of companies in which the United Gas Improvement Company is a shareholder. I render such services as I can, general, attending to matters and the general business of the companies in which it is interested, in my capacity as director of the various concerns.

Q. Are you also a stockholder in the company?

A. The United Gas Improvement Company—I am not.

Q. What relation does the United Gas Improvement Company bear to the Allentown Gas Company of Pennsylvania?

Objected to on part of complainant as wholly irrelevant and immaterial as to any controversy here.

A. It is a shareholder.

Q. What do you mean by shareholder?

A. It owns stock in the Allentown Gas Company.

Q. Does it own all the stock?

Complainant interposes the same objection last made.

A. I do not recall; if it does not own it all, it owns a large majority of it.

2798 Q. Why do you say recall, it owns it all?

A. Because I don't.

Q. Are you not an officer of that Company?

A. I think I am; I am not sure.

Q. You are drawing a salary there, are you not?

A. I think not.

Q. Are you sure about that?

A. I think not.

Q. Well, at any rate, it owns a majority of the stock?

A. Yes, I am safe in saying that.

Q. The Burlington, Iowa, Gas Light Company, what relation does the United Gas Improvement Company bear to that company?

A. It owns stock in that company.

Q. How much of that stock?

Judge CARR: We ask to have the same last objection made continued.

A. I cannot tell you any more than say that it owns a substantial majority.

Q. All of it, don't it?

Same objection.

A. I think not.

Q. Is there more than a half a dozen shares held by parties outside?

Same objection.

A. I really couldn't say.

Q. You are an officer of that company?

Same objection.

A. I think not in the Burlington Gas Light Company.

Q. Do you know who the treasurer of the company is?

Same objection.

2799 A. Yes.

Q. Who is it?

Same objection.

A. Mr. S. T. Bodine.

Q. What relation does Mr. S. T. Bodine bear to the United Gas Improvement Company?

Same objection.

A. He is 1st vice president.

Q. Mr. Walton Clark is an officer of the Burlington Company?

Same objection.

A. I do not recall whether Mr. Clark is or not. If you will let me have Poor's Manual I will give you the whole thing.

Q. I want to know what you know about it?

Same objection.

A. All right. I don't recall whether Mr. Clark is or not.

Q. Mr. Clark is an officer of the United Gas Improvement Company?

Same objection.

A. Yes.

Q. And Mr. Lewis Lilley is an officer of the Burlington Gas Light company?

Same objection.

A. I think Mr. Lilley is in the Burlington Gas Light Company.

Q. What relation does he bear to the United Gas Company?

Same objection.

A. Mr. Lilley is the 4th vice president and treasurer.

Q. And Mr. G. A. Pearson, does he have any relation with the Burlington Gas Light Company?

Same objection.

A. My recollection is Mr. J. A. Pearson is purchasing agent of the Burlington Gas Light Company.

2800 Q. What relation does he bear to the United Gas Improvement Company?

Same objection.

A. He is purchasing agent of the United Gas Improvement Company.

Q. Now, Mr. Douthirt, you are also secretary of the Des Moines Gas Company?

Same objection.

A. Yes.

Q. And how long have you been such?

Same objection.

A. Let me see. The company was organized in 1906. It was some time subsequent to its organization, according to my recollection, I was not elected secretary immediately upon the organization of the company; possibly a year or two later than 1906.

Q. Say in 1907?

Same objection.

A. Possibly.

Q. What relation if any do you bear to the Capital City Gas Light Company?

Same objection.

A. I think I never was an officer or director of that company; I don't recall that I was.

Q. Now as secretary of the Des Moines Gas Company, what are your duties?

Same objection.

A. I keep the corporate records, and I have been in attendance at this trial and spent a good deal of time in consultation with the attorneys prior to the beginning of this trial.

Q. You have been one of the counsel, have you not?

Same objection.

A. Oh, I think not.

2801 Q. Haven't you been acting in that capacity here?

Same objection.

A. Well, you may form your own conclusions.

Q. What else, what other duties if any; you don't mean it is one of your duties to try the lawsuits of the company?

Same objection.

A. Oh, no; I haven't tried a lawsuit for fifteen years.

Q. As I understand you, you are simply here as a witness the same as these other gentlemen?

Same objection.

A. I didn't come here as a witness.

Q. What particular duty do you have here?

Same objection.

A. Oh, much the same as Mr. Haines, except that he was called as a witness, and I am here as an officer of the company to help in any proper way I can.

Q. Have you any other duty in connection with the business of the Des Moines Gas Company in addition to what you have said, if so, I wish you would give it to me?

Same objection.

A. Every month in Philadelphia we get these 26 reports Mr. Haines spoke of; they are examined and the results are compared with the results of other companies in which the United Gas Improvement Company is a shareholder, and we make suggestions as to where the results may be improved.

Q. What do you mean by we?

Same objection.

A. Everybody in the organization, myself included.

Q. You mean in the United Gas Improvement Company?

Same objection.

2802 A. Yes.

Q. Now, is there anything else you know of?

Same objection.

A. I think I can't be more specific than that.

Q. You get a salary do you from the company?

Same objection.

A. Yes.

Q. When did you begin to draw this salary?

Same objection.

A. It was either late in 1909 or the beginning of 1910; I can't recall definitely.

Q. Well, how was it with reference to about the time that the company began to get ready to have a valuation put upon its property?

Same objection.

A. It was practically a year before that time.

Q. About a year you think?

Same objection.

A. Yes, about a year.

Q. How was it with reference to the time that the United Gas Improvement Company engineers began to make schedules and prepare data for replacement valuations?

Same objection.

A. About a year before that.

Q. You are pretty sure about that now?

Same objection.

A. My recollection is that Mr. Brodnax testified that he came here early in November 1910, and I told you a moment ago that this salary commenced either late in 1909 or at the beginning of 1910.

Q. Have you got the records with you that you have been keeping as secretary?

Same objection.

2803 A. You mean are they in the court room?

Q. Yes, or where you can reach them?

Same objection.

A. Oh, yes.

Q. I wish you would have them brought in after dinner, so that I can have them here. Now as secretary, I assume you attend the meetings of the board of directors?

Same objection.

A. Yes, I attend most of them; occasionally I am not there.

Q. And you make up the record at the time the meeting is held so that you are familiar with what is done by the board of directors?

Same objection.

A. Yes, at all those meetings at which I am present; I have not been present at all of them.

Q. Who are the board of directors of the Des Moines Gas Company?

Same objection.

A. Mr. Samuel T. Bodine, Mr. Walton Clark, Mr. Lewis Lilley, Mr. Jansen Haines and myself.

Q. Is Mr. Jansen Haines a director now?

Same objection.

A. Yes.

Q. I thought he was president?

Same objection.

A. He is.

Q. And director too?

Same objection.

A. Yes.

Q. Now, Mr. Bodine, what is his official title in the Des Moines Gas Company now?

Same objection.

2804 A. First vice president.

Q. And what is his relation to the United Gas Improvement Company?

Same objection.

A. First vice president.

Q. And Walton Clark, what is his official title in connection with the Des Moines Gas Company?

Same objection.

A. Second vice president.

Q. And with the United Gas Improvement Company?

Same objection.

A. Third vice president.

Q. And Mr. Lewis Lilley, what is his connection with the two concerns?

Same objection.

A. Which one.

Q. The Des Moines Gas Company and the United Gas Improvement Company?

Same objection.

A. He is treasurer of the Des Moines Gas Company and he is fourth vice president and treasurer of the United Gas Improvement Company.

Q. Now, who are the directors of the United Gas Improvement Company?

Same objection.

A. Samuel T. Bodine—

Q. He is a director of the Des Moines Gas Company?

Same objection.

A. Yes. Randal Morgan, C. A. Griscomb, Rudolph Ellis, William Wood, Morris L. Clothier; and in that connection may I say that nobody knows owing to certain peculiarities in the charter, whether the president, Mr. Thomas Dolan, is a director or not. The charter provides, as I have been informed, that the affairs of the

2805 corporation shall be controlled by the president and the six directors. The president is elected by the stockholders and the six directors are elected by the stockholders.

Q. You do not give me the name of Mr. Dolan for the reason that it is not known that he serves on the board?

Same objection.

A. He is president of the company though.

Q. Now, who owns the stock of the Des Moines Gas Company?

Same objection.

A. The United Gas Improvement Company owns substantially all of it.

Q. Is there any part of it that they don't own?

Same objection.

A. According to my recollection there is not.

Q. And never has been?

Same objection.

A. That I think is right.

Q. And the same is substantially true of the Capital City Gas Light Company?

Same objection.

A. I can't answer you as to that, General Byers.

Q. Well, Mr. Secretary, you have the records of the two companies, haven't you?

Same objection.

A. Yes.

Q. You can answer it, can you not, by investigation?

Same objection.

A. I can give you the names of the stockholders as appears by the minute books which I have her-

Q. That wouldn't be a truthful statement as to who was owner of the stock, would it?

Same objection.

A. Well, it might in part.

2806 Q. Well, not very much of a part, would it; I'll get to that later though; I want to follow another line for a few minutes. As I understand you, you now are secretary of the United Gas Improvement Company?

Same objection.

A. Yes.

Q. And as such secretary you keep the records of the corporation, that is, the minutes of the meetings of the board of directors and assist in the inspection and examination of reports that come in from

corporations and concerns that the United Gas Improvement Company is interested in, either as owners or owners of stock?

Same objection.

A. Yes, except that the United Gas Improvement Company does not own any properties in any other way.

Q. Except through the stock ownership?

Same objection.

A. Except through the stock ownership.

Q. Then I assume from your statement as to what your duties are that you know just the manner in which the books of these concerns in which the United Gas Improvement Company owns all or a majority of the stock and the manner in which their accounts are kept, and the manner in which they make their charges on their books?

Same objection.

A. Generally speaking, yes.

Q. So that you have been informed right along for the last six years by an examination of the reports sent in from Des Moines just what was being charged to operating expenses in Des Moines, have you not?

Same objection.

A. In a general way, yes.

2807 Q. Right at that point, may I ask you what has been the practice of the Company during the last five years, while you have been secretary of it, with respect to money that was paid out by the Company in the way of donations, either for charitable purposes or business purposes, or contributions to the officers or anything of that kind.

Same objection.

A. It has been charged to operating expenses.

Q. Everything that has been paid out at this office in the way of charity or in the way of contributions and business and to officers has been charged up to operating expenses?

Same objection.

A. I think so.

Q. Will you give me when you come in after dinner a list of these contributions for the last four or five years—maybe it would it *would* be fair for me to ask you if you know, I don't know whether you know or not, whether those expenditures are so shown on the books that you can readily pick them out?

Same objection.

A. Why I think they are. Whether it could be done at the noon recess, or not, covering the period you mention, I have very much doubt.

Q. Well, you as an officer of the company have known right along—take for instance this item of \$2,000 being contributed to the

local so-called Booster Committee—you know that item was being charged to operating expenses?

Same objection.

A. Yes, I voted for it at the meeting of the board of directors.

Q. What was the purpose you and the company had in mind in making that contribution, what was it for?

Same objection.

A. To help the city of Des Moines.

2808 Q. Was that the purpose of it?

Same objection.

A. Yes.

Q. And not to help the Gas Company?

Same objection.

A. Only incidentally, as the Gas Company might be helped by any general improvement in the city.

Q. So you thought it would be entirely proper to have the gas consumers of Des Moines contribute through your concern \$2,000 for that purpose, that was your idea?

Same objection.

A. Yes.

Q. Was that your idea as to the contributions to the Y. M. C. A. Y. W. C. A.—if there is such a concern—and these other associations here?

Same objection.

A. Yes.

Q. So that all this class of contributions has been charged into the operating expenses and gone in with the cost of making gas in Des Moines?

Same objection.

A. Yes.

Q. I would like to have you have some one of your very active young men furnish me a list of that, say for the last four or five years and the amount of it. Going back to the Allentown, Pennsylvania, Gas Company, Mr. Bodine is treasurer, isn't he?

Same objection.

A. According to the best of my recollection.

Q. Mr. Clark is vice president?

Same objection.

A. I think he is.

2809 Q. Mr. Lewis Lilley is treasurer?

Same objection.

A. Yes.

Q. Mr. Douthirty is secretary, is he not?

Same objection.

A. Yes.

Q. Mr. Pearson is purchasing agent?

Same objection.

A. Yes.

Q. Now, Mr. Bodine, what is his salary in Allentown, do you know?

Same objection.

A. I don't know.

Q. What is yours?

Same objection.

A. I don't know.

Q. You don't know; who does know?

Same objection.

A. The books of the Allentown Company will show.

Q. When do you get your money?

Same objection.

A. It comes in once a month I think.

Q. Do you get it?

Same objection.

A. No.

Q. Who gets it?

Same objection.

A. The United Gas Improvement Company.

Q. It gets your salary from here too, don't it?

Same objection.

A. Yes.

Q. I find Mr. Walton Clark on the salary list here for 2810 \$1,800. Do you know when he first got on the salary list?

Same objection.

A. I think at the same time I did.

Q. Just tell the Master how it come that you both got on at that time and why you got on?

Same objection.

A. Well, Mr. Clark and the various members of his force, Mr. Lilley and the members of his force, and myself had been rendering a great deal of service in connection with the Des Moines Gas Company for a good many years; the Des Moines Gas Company had never paid anything for it and it was finally determined that it was proper that the services should be paid for and the appropriate way to do it seemed to be to pay us salaries as officers of the company.

Q. You say the Des Moines Gas Company had never paid anything; what do you mean by that; had never paid anything to you or the United Gas Improvement Company?

Same objection.

A. Never paid anything to the United Gas Improvement Company or to any of its officers who were not residents in Des Moines.

Q. Well, how was it going to help you any to have this \$1,600 if it went to the United Gas Improvement Company?

Same objection.

A. It wasn't going to help me personally.

Q. This was just another way of getting a dividend on their stock and calling it salary?

Same objection.

A. No, it was a way of getting compensation for services of all sorts rendered in behalf of this company by all the organization of the United Gas Improvement Company.

2811 Q. In addition to Walton Clark, vice president, \$1,800, I find Lewis Lilley here, the treasurer, at \$1,600. When did he get on the pay roll here?

Same objection.

A. I think the sametime.

Q. Mr. J. A. Pearson, purchasing agent, \$2,500; when did he get on?

Same objection.

A. I think the same time.

Q. I find by an examination of the authorities on gas properties and electric light properties that Mr. Bodine is an officer of one kind or another in about, between 30 and 45 companies; does he get \$2,500 from each?

Same objection.

A. No.

Q. How much does he get?

Same objection.

A. I don't know.

Q. Let us take your own case—that is perhaps a better way; do you have anything to do with the accounts of the United Gas Improvement Company—I think you said a moment ago a part of your duties was to look after the accounting?

Same objection.

A. Yes, in a general sort of way.

Q. You know in a general sort of way about all these salaries, don't you?

Same objection.

A. Very general sort of way.

Q. How general would you say?

Same objection.

A. Well, I couldn't give you figures.

2812 Q. Let us take your own case and run through it a while and see—passing Allentown—the next is Burlington Gas Light Company, and I find Mr. Bodine and Mr. Lilley and Mr. Pearson and I think yourself fill practically the same positions with the Burlington Gas Light Company that you do with the Des Moines Gas Company; what is your salary?

Same objection.

A. I don't think I am an officer of the Burlington Gas Light Company.

Q. Mr. Bodine is?

Same objection.

A. Yes.

Q. And Mr. Libbey is?

Same objection.

A. Yes.

Q. And Mr. Pearson is?

Same objection.

A. Yes.

Q. Mr. Pearson occupies exactly the same relations to the Burlington Company which he has as purchasing agent?

Same objection.

A. Yes, he is purchasing agent. Wherever you find him an officer of the company he is purchasing agent.

Q. What does he get in Burlington?

Same objection.

A. I couldn't tell you.

Q. Does he get a salary?

Same objection.

A. I think he does.

Q. That goes to the United Gas Improvement Company?

Same objection.

2813 A. Yes.

Q. What is your salary with the United Gas Improvement Company?

Same objection.

A. I refuse to state.

Q. I did not ask that question, Mr. Douthirt, out of any idle curiosity at all. I was surprised this information was not furnished originally by the company, because I think it is entirely competent and I think it is absolutely necessary for the Master to have this

information, all of it, in order to reach anything like a safe and reliable conclusion here, and these question- are for the express purpose of getting at the exact facts. If I thought the question of your salary would not cut any figure I would not ask the question. I do not care to press it, if you do not care to state.

Mr. GUERNSEY: I would decline to state if I was you.

Judge CARR: I think the salary he may get from the United Gas Improvement Company has nothing to do with the issues in this case.

The MASTER: Well, it looks that way to me; I suppose these various salaries make up his salary.

Mr. BYERS: The purpose is to get dividends under the name of salaries.

Judge CARR: Mr. Douthirt has stated frankly what is done, and further than that, it seems to me what salary he gets from the United Gas Improvement Company is in no way material here, and I think counsel knows it.

Mr. BYERS: That is a slight reflection on my decency.

The MASTER: The main question is whether or not the company here is entitled to have the amount of those salaries taken out of the expense; that is the main question.

2814 Mr. BYERS: The question here, Mr. Master, is whether this ordinance, if it is put in operation, from my standpoint, would result in confiscating the property of this Gas Company. I have in mind what I think is a very important reason why this testimony would be proper, if we can get it. I have already told the witness I would not press it if he did not care to say.

Mr. GUERNSEY: The only question is whether these services were worth what was charged for them, not how it was paid or where the money ultimately went.

The MASTER: I don't know about that. There is a serious question, another question whether under the present showing the salary could be charged to operating expenses at all or not.

Judge CARR: That is the Des Moines salary here?

The MASTER: If it is paid to somebody else.

Mr. BYERS: Let me state briefly what I have in mind; here is the view I have of this situation: Here is a controversy now resting entirely upon complainant's charge that this ordinance will in its operation result in confiscating the property of the Des Moines Gas Company. Now that question involves in its settlement an accurate and intelligent knowledge of all of the operations of the Des Moines Gas Company and every other concern interested with it in the operation, and my notion about this line of testimony is that the Master ought to know when he comes to make up his findings just what the relation of all these parties are, just where this money is going and the purpose for which it is being used and just the manner in which the business is being done; when he has that then the question as to how it may affect the final result is one the
2815 Master will have to work out himself. It is my judgment and I thought it was the complainant's duty to furnish this

testimony themselves, not only to furnish the testimony, but to furnish the books and records, and it is my purpose now to do that for them.

The MASTER: As I understand it, you are not pressing the question?

Mr. BYERS: I don't care, if he don't want to say. I have no doubt it is enough; I don't mean that in any offensive way either.

Q. Let us take the Charleston Consolidated Railway & Lighting Company. Are you any officer in that concern?

Same objection.

A. Yes.

Q. What relation does the United Gas Improvement Company bear to that concern?

Same objection.

A. Owns the majority stock.

Q. What is your salary with that concern?

Same objection.

A. I don't get any salary there—nothing.

Q. Mr. Bodine is an officer in that company?

Same objection.

A. No, I think not.

Q. Mr. Lilley?

Same objection.

A. I think Mr. Lilley is treasurer, yes.

Q. How about Mr. Pearson, is he purchasing agent?

Same objection.

A. Yes.

2816 Q. Does he get the same salary there he does with the Des Moines Company?

Same objection.

A. I don't think he gets any salary there.

Q. Can you give the Master any reason why he should have \$2,500 from the Des Moines Gas Company and nothing from the Charleston Consolidated Railway & Lighting Company?

Same objection.

A. No.

Q. The Chester County Gas Company, Westchester, Pa., what relation does the United Gas & Improvement Company bear to that concern?

Same objection.

A. It owns the majority stock.

Q. Mr. Bodine is president, is he?

Same objection.

A. I think he is.

Q. Mr. Lilley is treasurer?

Same objection.

A. I think so.

Q. Mr. Pearson is purchasing agent?

Same objection.

A. I think so.

Q. You are the secretary?

Same objection.

A. That is my recollection.

Q. What is your salary there?

Same objection.

A. I don't recall.

Q. Is it more or less than at Des Moines?

Same objection.

A. I don't recall whether I get any salary there at all or not.

Q. You perform practically the same services there that
2817 you do here?

Same objection.

A. Well, it is a very much smaller property and does not require
as much time.

Q. Do you remember whether you get any?

Same objection.

A. No, I do not.

Q. How about Mr. Bodine or Mr. Lilley?

Same objection.

A. I don't know.

Q. And Mr. Pearson?

Same objection.

A. I don't recall.

Q. Mr. Pearson gets a salary charged up against all the concerns
that he acts as purchasing agent for?

Same objection.

A. I couldn't tell you that General Byers. You see there is a list
of forty or fifty of them. I think he gets a salary from most of
them, but whether from every one or not, I really couldn't say.

Q. There are some he does not get a salary from?

Same objection.

A. I think so.

Q. This Charleston Consolidated Railway & Lighting Company, do you know how that is being operated in that city, under what arrangement with the city?

Same objection.

A. The Charleston Consolidated Railway & Lighting Company is the *is the* lessee of the railway, gas and electric properties is Charleston, which are owned by the Charleston Consolidated Railway Gas & Electric Company. Now does your question address itself to the franchises under which the properties are operated.

Q. What rate do you get for gas there?

Same objection.

A. I think it is \$1.25.

Q. Under what arrangement with the city?

Same objection.

A. There was an ordinance passed within the last two years I think, and I think the price is subject to regulation by the city, according to my best recollection.

Q. That don't quite answer my question.

Same objection.

A. You are asking me to recall the terms of a franchise.

Q. The Concord, New Hampshire, Light & Power Company, you are an officer in that concern?

Same objection.

A. I think not, according to the best of my recollection I am not.

Q. And Mr. Lilley and Mr. Bodine and Mr. Clark?

Same objection.

A. According to the best of my memory Mr. Lilley is and Mr. Bodine and Clark are not.

Q. How about Mr. Pearson, is he the purchasing agent?

Same objection.

A. According to the best of my recollection he is.

Q. The Connecticut Railway & Lighting Company, New Haven, Conn., are you an officer in that?

Same objection.

A. Yes, I am secretary of that.

Q. Do you know what your salary is there, Mr. Douthirt?

Same objection.

A. Yes.

Q. About how much?

2819 Same objection.

A. Nothing.

Q. And Mr. Bodine?

Same objection.

A. No, Mr. Bodine is not an officer of that company.

Q. Mr. Pearson?

Same objection.

A. No.

Q. Mr. Lilley?

Same objection.

A. Mr. Lilley is treasurer.

Q. Now this company that I am just asking about, is it a gas company, the Connecticut Railway & Lighting Company?

Same objection.

A. In part, yes.

Q. What relation does the United Gas Improvement Company bear to it?

Same objection.

A. It owns the majority of the stock.

Q. Has it so owned the majority of the stock ever since you have been secretary?

Same objection.

A. Yes.

Q. The Konshohaken Gas Light Company, are you secretary of that concern?

Same objection.

A. I don't recall now whether I am or not.

Q. What relation does the United Gas Improvement Company bear to that Company?

Same objection.

A. Owns the majority of the stock.

2820 Q. That means all of it?

Same objection.

A. No.

Q. How much in a general way is not held by the company, more than a share or two?

Same objection.

A. I couldn't tell you.

Q. A very small part of it, if any?

Same objection.

A. In that particular case, probably a very small part if any.

Q. The Consumers' Gas Company, Reading, Pa. You are secretary of that company?

Same objection.

A. Yes.

Q. Mr. Pearson is the purchasing agent?

Same objection.

A. Yes.

Q. Mr. Clark is the president?

Same objection.

A. No.

Q. What is his official title?

Same objection.

A. Vice president.

Q. Who is the president?

Same objection.

A. A Mr. Custer.

Q. Mr. Lilley is treasurer?

Same objection.

A. Yes.

Q. What relation does the United Gas Improvement Company bear to that concern?

2821 Same objection.

A. It owns the minority stock.

Q. Who owns the balance, do you know?

Same objection.

A. Quite a number of people.

Q. Do you have stock in it?

Same objection.

A. No.

Q. What is your salary?

Same objection.

A. Nothing.

Q. You got no pay there?

Same objection.

A. No.

Q. You don't have any stock?

Same objection.

A. No.

Q. Yet you are an officer in the company?

Same objection.

A. Yes.

Q. How large a concern is it?

Same objection.

A. I think it has got about 100 miles of mains.

Q. Does the United Gas Improvement Company get monthly reports from that concern?

Same objection.

A. Yes.

Q. You look them over?

Same objection.

A. Yes.

Q. And perform the same kind of service that you do to
2822 the Des Moines Gas Company?

Same objection.

A. In part, yes.

Q. But you get no salary?

Same objection.

A. No.

Q. Now, the Dauphin County Gas Company, are you secretary of that Company?

Same objection.

A. I think not.

Q. Mr. Clark is president or vice president?

Same objection.

A. I don't recall.

Q. Mr. Lilley is treasurer, isn't he?

Same objection.

A. I am not sure of that.

Q. Mr. Pearson is the purchasing agent?

Same objection.

A. No, I think not. May I tell you why?

Q. If you wish.

A. The Dauphin County Gas Company property is leased to the Harrisburg Gas Company and it is not an active corporation.

Q. Is the stock owned by the United Gas Improvement Company?

Same objection.

A. The United Gas Improvement Company owns the majority.

Q. It is a live concern?

Same objection.

A. Yes, but not operating its property.

Q. It makes regular reports for its receipts and expenditures?
Same objection.

A. Its reports are very simple; simply consist of collecting rent for the property.

2823 Q. And reporting to the United Gas Improvement Company?

Same objection.

A. Yes, to its own officers.

Q. The Equitable Illuminating Gas Light Company of Philadelphia, you are secretary of that Company?

Same objection.

A. No.

Q. It seems to be so given?

Same objection.

A. That is a mistake.

Q. You are a director?

Same objection.

A. Yes.

Q. Is that a live company furnishing gas?

Same objection.

A. Yes.

Q. And what relation does it bear to the United Gas Improvement Company?

Same objection.

A. The United Gas Improvement Company owns the majority of stock.

Q. In this case that means substantially all?

Same objection.

A. No, I think in this case, decidedly not.

Q. Do you have stock in this company?

Same objection.

A. No.

Q. The Essex & Hudson Gas Company of Newark, N. J., are you secretary of that concern?

Same objection.

A. Yes.

2824 Q. What kind of a company is that, what does it do?

Same objection.

A. Owns the gas works.

Q. About how large an institution is it as to miles of main, capacity, or anything like that?

Same objection.

A. I don't know that I can give you those things. I can tell you in another way, if you desire, about the size of the property.

Q. About what is the population?

Same objection.

A. The City of Newark is, I think, upwards of 200,000; and then this company also supplies numerous suburbs like Orange, Mt. Claire, these suburban towns to the west and north of Newark; so I expect it supplies a population of from 300,000 to 400,000.

Q. So that the output would be quite large?

Same objection.

A. Yes.

Q. Who is the president of that company?

Same objection.

A. A Mr. John F. Shanley.

Q. Who is the vice president?

Same objection.

A. I think Mr. Clark and Mr. Lilley are both vice presidents of that company.

Q. Does Mr. Pearson act as purchasing agent for that company?

Same objection.

A. No.

Q. Are there any salaries paid there to yourself and Mr. Clark and Lilley?

Same objection.

2825 A. No, that is also a leased company and is not in active operation of its property.

Q. All it does then is to collect its rent and report, as the Equitable?

Same objection.

A. No, as the Dauphin County Company.

Q. Now the Fulton County Gas Electric Company—this Essex and Hudson Gas Company, who owns the stock in that concern?

Same objection.

A. The United Gas Improvement Company owns the majority.

Q. Does that mean substantially all of it?

Same objection.

A. Decidedly not.

Q. The Georgia Railway & Electric Company of Atlanta, Ga., what is the business of that corporation?

Same objection.

A. What its name indicates, railway and electric.

Q. Does it make gas?

Same objection.

A. I don't think that company itself makes gas. My under-

standing is it owns a large majority of the stock in the Atlanta Gas Light Company, which does make gas.

Q. What relation if any does the United Gas Improvement Company bear to the Atlanta Company?

Same objection.

A. To the Georgia Railway & Electric—it owns a minority of the stock.

Q. Are you an officer of the company?

Same objection.

A. No.

Q. Now, the Harrisburg Gas Company of Harrisburg, 2826 Pa., what is the business of that concern?

Same objection.

A. Manufacturing and furnishing gas.

Q. It is not a leased concern?

Same objection.

A. No.

Q. It is alive?

Same objection.

A. Yes.

Q. Mr. Bodine is president?

Same objection.

A. Yes, I think he is.

Q. Mr. Lilley is treasurer?

Same objection.

A. I think so.

Q. You are secretary?

Same objection.

A. Yes.

Q. Mr. Pearson is purchasing agent?

Same objection.

A. Yes.

Q. How much of a concern is that in mains or population?

Same objection.

A. My recollection is that Harrisburg is a place of between 60 and 90 thousand.

Q. This is the only gas company there?

Same objection.

A. Yes.

Q. How long have you been secretary of that company?

Same objection.

A. I guess three or four years, possibly longer.

2827 Q. What relation does the United Gas Improvement Company bear to that concern?

Same objection.

A. It owns the majority of the stock.

Q. Does that mean practically all of it?

Same objection.

A. No.

Q. Now what salary do you get there?

Same objection.

A. I don't recall whether I get any or not.

Q. And does that company make regular reports to the United Gas Improvement Company?

Same objection.

A. Yes.

Q. Has it been ever since you were secretary?

Same objection.

A. Yes.

Q. You have assisted in examining them and checking them up and all that sort of thing?

Same objection.

A. Yes.

Q. Doing substantially the same work with respect to those reports that you have in Des Moines?

Same objection.

A. With respect to the reports, yes.

Q. Do you know what Mr. Pearson's salary is?

Same objection.

A. I don't.

Q. Do you object to telling me what Mr. Pearson's salary is with the United Gas Improvement Company?

Same objection.

2828 A. I don't know what it is.

Q. That matter has not come under your supervision, or even been called to your attention in any way through your labor as accountant or in examining the books, or in the votes of the directors, or anything of that kind?

Same objection.

A. I may have known what Mr. Pearson's salary was at some time. I don't know now.

Q. It is all fixed by these directors at these several meetings?

Same objection.

A. Oh, yes.

Q. So that you must have known at some time what the salaries were?

Same objection.

A. He has been in the employ of the company a great deal longer than I have and his salary was fixed before my time; whether it has been changed since that time I don't recall. If it has been, I very likely made a record of it.

Q. Will you tell us just how you make the record of the directors' meetings of the Des Moines Gas Company; how the business of the meeting is carried on and what you do?

Same objection.

A. Well, the principal business at most of the meetings is the consideration of appropriations for expenditures for betterments. They come before the board and they are examined, and if the expenditures for laying additional mains or for any betterments or improvement appear to be necessary and proper and wise, they are authorized, and the entry is made on the minutes; that constitutes a pretty large part of the business of the board; we go into these matters pretty carefully.

Q. Let us take a concrete case; suppose Mr. Haines decides that he ought to have a new generator, I wish you would just tell now in as brief way as you can and yet give us the information just how that generator would be provided for?

Same objection.

A. Mr. Haines would take the matter up with Mr. Walton Clark or with some member of Mr. Clark's engineering organization and they would consider the matter, and if they agreed with Mr. Haines or Mr. Vincent that the apparatus was reasonably necessary, they would then bring the matter before the board and present their reasons and a statement of the estimated cost and the board would determine the matter.

Q. Well, now, would this correspondence be with Mr. Clark or with you?

Same objection.

A. In the case you mention, being an engineering matter, it would be with Mr. Clark.

Q. And Mr. Clark is vice president of the Des Moines Company and one of the vice presidents of the United Gas Improvement Company?

Same objection.

A. Yes, he is second vice president of the Des Moines Gas Company and third vice president of the United Gas Improvement Company, and he is the head of the operating department, as we call it, which includes construction and engineering and all the matters incident to the operation of the properties in an engineering sense.

Q. How long has Mr. Clark occupied that relation to the United Gas Improvement Company?

Same objection.

A. Well, it ante-dates my connection with the company.

Q. Do I understand you had no connection with the company prior to your election as secretary?

Same objection.

A. Yes, I was in the employ of the company prior to my election as secretary.

Q. And for how many years?

Same objection.

A. I can best answer you by giving you the date I entered the employment of the company, which was November 1, 1902. I know Mr. Clark was at the head of the operating department at that time, and I know from what I have learned since I have been in the employ of the company, he was at the head of the operating department at least ten years prior to that time.

Q. Mr. Clark was also one of the officers of the Capital City Gas Light Company, was he not?

Same objection.

A. Whether Mr. Clark was actually an officer of the Capital City Gas Light Company, I don't know; but in any event he was an officer of the United Gas Improvement Company at the time when that company owned a majority of the stock in the Capital City Gas Light Company.

Q. Now I wish you would bring with you this afternoon the minute books of the Capital City Gas Light Company and the Des Moines Gas Company.

At this time an adjournment was taken until 1:30 P. M.

2831

1:30 P. M. WEDNESDAY, August 23, 1911.

W. F. DOUTHIRT being continued on direct examination by Hon. H. W. Byers, testified as follows:

Q. What is the title or name of the officer or position with the United Gas Improvement Co., the person who audits the accounts of these several companies who represents the U. G. I. in auditing?

Same objection.

A. The man who visits the different companies in which the United Gas Improvement Company is interested and actually does the work of auditing is called a traveling auditor.

Q. Is there some person in that department that supervises the work generally?

Same objection.

A. There are a number of traveling auditors and they report to the general auditor.

Q. Who is the general auditor?

Same objection.

A. Mr. R. C. James.

Q. Do you know the name of the auditor that has been visiting the Des Moines Gas plant in recent years?

Same objection.

A. Well I think the same auditor never makes two consecutive visits to the same company. They are changed every time I think.

Q. Do you know the name of the man who was here last?

Same objection.

A. I do not.

Q. The one that was here in 1910?

Same objection.

2832 A. I do not.

Q. Did you bring in the minute books of the stockholders and directors in the Des Moines Gas Company?

Same objection.

A. They are here, yes.

Q. I wish you would—I think that book has been identified once before by Mr. Haines, I am not sure that is the one.

A. T-is is marked Des Moines Gas Company No. 1 stockholders and directors minutes.

Q. I wish you would turn to the record if there is any such in that book that was made at the time these salaries I have been inquiring about were provided for?

A. Yes, I have it.

Q. Is this all the record that was made upon that question of salaries, I am reading from page 185 in the book you have just turned to "Salaries officers, approved payment of salaries to the following officers at the following rates per year effective November 1, 1909, president \$2,500, second vice president \$1,800 treasurer \$1,600 Secretary \$1,600, purchasing agent \$2,500. Is that all the record that was made with respect to these matters?

Same objection.

A. Does anything follow it on the page you are reading under the same heading?

Q. The next heading is betterment statement.

A. Then that is all the record which was made.

Q. Is this all the record that was made anywhere in any book?

Same objection.

A. Yes, sir.

Q. Do you know who proposed this list of salaries, how it got in here or why you have written it?

Same objection.

2833 A. Will you look at the beginning of the minutes of that meeting and tell me who was present?

Q. It says present President Bodine and directors Lilley and Thompson constituting a quorum.

A. You want me to give my recollection of how the whole matter of these salaries originated, my recollection outside of the record.

Q. Well the record don't show anything about it as far as you have it.

Same objection.

A. The record shows they were authorizes.

Q. If you have any recollection about it I would like to have it?

Same objection.

A. I recall that the matter was discussed by, first, I think by Mr. Lilley and myself and in view of the fact that the whole organization of the United Gas Improvement Company including its engineering department have been for a number of years rendering services to the Des Moines Gas Company we thought it was proper that some compensation should be made for these services after that time especially as the company had then reached a point where it was more able to pay properly for these services than it had been in the past. We considered that a total of about \$10,000 a year was a proper sum to pay, for the Des Moines Gas Company to pay for all of the services of the whole U. G. I. organization and we thought that a proper way to pay it would be for the Des Moines company to appropriate salaries to those of the U. G. I. Officials who were its officers. I think Mr. Lilley and I worked out the different amounts per annum specific there making up the total of \$10,000 then we talked it over with Mr. Bodine and Mr. Clarke and they agreed to it, then at the time for the next regular meeting of the board it was put before the board as appears by the record

2834 and approvee, authorized.

Q. Were you present at the meeting?

Same objection.

A. It appears by the record I was not.

Q. What you have been telling *you* then was something which occurred prior to the meeting?

Same objection.

A. Yes, sir.

Q. Not at the meeting?

Same objection.

A. Not at the meeting.

Q. All worked out before the meeting?

Same objection.

A. Yes, sir.

Q. When was it that it was first talked about?

Same objection.

A. My recollection is it was first talked about as much as three years before it was finally done.

Q. Well when was it first talked about with respect to—I don't mean at some years prior, but how long before this meeting had you talked about it and worked it out so it was ready to be approved by the board?

Same objection.

A. Well my recollection is that Mr. Lilley and I had talked about it as I say for at least three years before the date of that meeting and we have talked about the sum of \$10,000 as being a proper amount. When we got down to the detail of splitting the \$10,000 up into the several sums mentioned there I could not tell you.

Q. Well it didn't make any difference about that did it?

Same objection.

A. Oh no.

2835 Q. Since you didn't get any part of it?

Same objection.

A. Oh no, didn't make any difference about that.

Q. Been just the same if you had allowed it all to one officer as to divide it up among other officers?

Same objection.

A. So far as the final result to the United Gas was concerned, yes.

Q. Now going back to that question of just how the Des Moines Gas Company carries on its business, taking up that same question that I put to you before dinner of the purchase of a new generator. If I understood you correctly the request for the generator would be forwarded to the company, the U. G. I., at Philadelphia by Mr. Haines?

Same objection.

A. Technically the correspondence would be between Mr. Haines as manager which he was up to early this month of the Des Moines Gas Company and Mr. Clark as second vice president of the Des Moines Gas Company. They would correspond about *what* wisdom and appropriateness or necessity of additional apparatus, probably the correspondence would originate with Mr. Haines.

Q. You don't mean probably it would originate with him, you mean don't you that if it came from here at all it would come from him.

Same objection.

A. Yes, but the probabilities are that he would originate the matter himself. He knows what the requirements of the plant are. He knows what the future is likely to be and as a general rule all correspondence relating to betterment expenditures would originate in Des Moines.

Q. Well now then after the matter had reached Philadelphia and was received there by somebody on behalf of the United Gas Improvement Company what would be the next step taken with respect to that generator?

Same objection and also because the question assumes that this correspondence is received on behalf of the U. G. I. Company when it reaches Philadelphia.

A. The correspondence which would be addressed to Mr. Clark as an officer of the Des Moines Gas Company would be by him referred to some one or more of the members of the United Gas Improvement Company's engineering department for their consideration and their report thereon to Mr. Clark.

Q. Then what would Mr. Clarke do with it?

Same objection.

A. If Mr. Clark after receiving the reports mentioned thought the expenditure wise and judicious he would then take some early opportunity to lay it before the board of directors.

Q. And that would be at a regular monthly meeting of the board?

Same objection.

A. Yes, sir.

Q. And what action would then be taken?

Same objection.

A. Well that would depend upon whether the board agreed with Mr. Clark or not. If they agree with him they would authorize the expenditure and a record would be made of it.

Q. And if they did not authorize if then what?

Same objections.

A. Then it would not be authorized.

Q. Well would any record be made of that?

Same objection.

A. No.

2837 Q. Would not appear on the record at all?

Same objection.

A. Would not appear on the minutes, no.

Q. So that the minutes will only show the actual authorization of expenditures?

Same objection.

A. Yes, and I may say that in general the minutes will show only affirmative action, not negative action.

Q. Now in the case we are talking about, the generator, if the board of directors approve the expenditure then what is done?

Same objection.

A. Then the generator is built and paid for.

Q. Is that all there is to it, how does Mr. Haines find out what has been done?

Same objection.

A. Well Mr. Clark or some one for him would notify Mr. Haines.

Q. In what way?

Same objection.

A. Probably by letter.

Q. And do you have any special blank that you use in this case?

Same objection.

A. Yes, I think Mr. Clark has a blank that he uses in that case.

Q. That blank is filled up either by him or somebody in the office there for him?

Same objection.

A. Yes, sir.

Q. And forwarded here to the Des Moines office? Is that right?

Same objection.

A. I would say so yes.

Q. And the Des Moines office then proceeds upon the authority that is covered by that blank filled out.

Same objection.

A. Yes, sir.

Q. Now can you give us some piece of apparatus or important part of this machinery down here that has been purchased in the last three or four years?

Same objection.

A. Let me have the book and I can no doubt pick out some.

Q. Find the most important piece that has been authorized recently within say a year and a half or two years?

Same objection.

A. Shall I commence that for example the beginning of 1909, that would be about a year and a half.

Q. Yes, begin at that time if you wish to.

A. You said a year and a half and that occurred to me as about that. In the period commencing January 1, 1909, the largest single item I find is one of \$12,000.

Q. What was that for?

Same objection.

A. That was for installing derrick coke tank and so forth which was approved at the meeting of April 25, 1910. Then I find at the meeting of January 24, 1910, an item of \$10,000.

Q. What is that for?

Same objection.

A. Erect one 300,000 gallon oil tank in brick pit including steam oil connections, etc.

Q. Right at that point, that item you have just read, I wish you would produce for me or have some one for the company produce the correspondence that passes between the U. G. I. Company and the Des Moines Gas Company with respect to that item and 2839 the authorization that was finally sent here, that was forwarded from the United Gas Improvement Company to the Des Moines Gas Company. Now I wish you would find for me in that year and a half if you can without too much trouble the gas pipe, gas mains in considerable quantities that were disposed of in the same way?

Same objection.

A. At the meeting of May 23, 1910, there is a list of twenty seven different runs of mains amounting in the aggregate to an estimated cost of \$12,305.45.

Q. What is the date of that meeting?

Same objection.

A. May 23, 1910.

Q. I want you to produce the correspondence that passed between Mr. Haines, manager of the Des Moines Gas Co., and the United Gas Improvement Company or any of its officers covering that pipe you have just referred to and the authorization, if any.

Same objection.

A. There will be no such correspondence.

Q. Why not?

Same objection.

A. Because the correspondence will not be either with United Gas Improvement Company or with anyone who is not an officer of the Des Moines Gas Co.

Q. Well is that exactly correct?

Same objection.

A. I think so.

Q. I just wondered if you were sure about it?

Same objection.

A. Reasonably so.

Q. Do you remember just how the correspondence from 2840 the Philadelphia end is signed?

Same objection.

A. Oh not exactly no.

Q. Do you still think you are correct?

Same objection.

A. I think so, yes.

Q. Then let's put it the way that suits you best, the correspondence between Mr. Haines or anyone else for the Des Moines Gas Com-

pany and Mr. Clarke or Mr. Bodine or Mr. Lilley or yourself with respect to that item that you have just referred to in the record book?

A. The 27 items?

Q. Yes, 27 items and the authorization or authorizations as the case may be that were sent here covering that list of items. Are there any other items there?

Same objection.

A. Directors' meeting June 27, 1910, twenty one runs of main.

Q. Does it show what kind of main this is?

A. Four inch, six inch, four inch, eight inch, four inch, four inch, four inch, four inch, four inch, eight inch, four inch, four inch, four inch, six inch eight inch, four inch, four inch. Twenty one runs of main estimated to cost in the aggregate \$5,756.66.

Q. What page is that please?

A. Directors' meeting June 27, 1910.

Q. Where was the meeting held?

Same objection.

A. Philadelphia.

Q. Are the stockholders' and directors' meetings all held in Philadelphia?

Same objection.

2841 A. No.

Q. When have the directors had a meeting in Des Moines?

Same objection.

A. You said stockholders' and directors' meeting.

Q. I am not talking about directors.

Same objection.

A. Oh I think all directors' meetings are held in Philadelphia, but not stockholders'.

Q. When have the stockholders had a meeting in Des Moines and who was present?

Same objection.

A. The last meeting was April 4, 1911.

Q. Who was present?

Same objection.

A. Mr. R. W. Cunningham and Mr. Haines.

Q. Who is Mr. R. W. Cunningham?

Same objection.

Q. He is one of the men in the office upon Seventh street.

Q. An office boy?

Same objection.

A. Oh no.

Q. Is Mr. Haines a stockholder?

Same objection.

A. No I think not.

Q. Is Mr. Cunningham a stockholder?

Same objection.

A. I think not.

Q. What is Mr. Cunningham's business?

Same objection.

A. Why he is one of the principal men in the office up there.

2842 Q. What does he do?

Same objection.

A. Receives customers, attends to their wants, and receives orders of all kinds.

Q. Who does he work for?

Same objection.

A. Des Moines Gas Company.

Q. Is he one of their bookkeepers?

Same objection.

A. If I recollect correctly Mr. Cunningham is not a bookkeeper I think he has charge of the floor in front of the office.

Q. Just one of the salaried men in the office isn't he?

Same objection.

A. Yes, sir.

Q. About \$75.00 a month?

Same objection.

A. I don't know and I would not tell you if I did.

Q. Perhaps he would if we would ask him.

Same objection.

A. He might.

Q. Who is the head bookkeeper if there is any such man for the Des Moines Gas Co.?

Same objection.

A. Mr. Sherman is chief clerk.

Q. If we should want some man from the gas company for which you are secretary who could identify the entries in the books of the Des Moines Gas Co., who would we call upon?

A. I think Mr. Sherman would be the man.

Q. What is his first name?

Same objection.

A. I don't know.

2843 Q. Is he now working for the gas company?

Same objection.

A. Yes, sir.

Q. And you don't know his first name?

Same objection.

A. No.

Q. Do you know his initials?

Same objection.

A. No.

Q. How long has he been with the company?

Same objection.

A. I think he has been there twenty years.

Q. And he would know about the entry in the books would he?

A. Yes, sir.

Q. Now this stockholders' annual meeting here that you have referred to appears on page 239 of this book Des Moines Gas Company No. 1 stockholders' and directors' meetings, was held at that time was it?

Same objection.

A. I assume that the record is true.

Q. Well who made the record?

Same objection.

A. Tell we who signed it and I will——

Q. Were you present?

Same objection.

A. No, I was not there.

Q. You was not here at all?

Same objection.

A. No, I was not here.

Q. That is a meeting you did not attend as secretary?

Same objection.

2844 A. Yes, sir.

Q. Did you attend the stockholders' meetings in Des Moines?

Same objection.

A. No, I don't recall I ever attended one of them.

Q. Can you give us the date of a single meeting that has been held in Des Moines since 1906 when a stockholder was here personally?

Same objection.

A. No.

Q. Can you give us the date of a single meeting when you were here personally yourself?

Same objection.

A. No.

Q. Now where else in this book will I find a record of the stockholders' meetings?

Same objection.

A. Let me have it and I will point it out to you. On page 1, you will find a meeting of the incorporators and stock holders commencing on page 1, the date of which was March 1, 1906. On page 91 the minutes of the annual stockholders' meeting held April 2, 1907. Page 129 annual stock holders' meeting held April 7, 1908. Page 166 annual stock holders' meeting April 6, 1909. Page 204, annual stockholders' meeting April 5, 1910.

Q. And the other one was the meeting for 1911?

A. Yes, sir.

Q. And the pages that you have just referred to start with the beginning of the book and end with the last page of this book do they not?

Same objection.

A. Start with page 1 but do not end—

Q. The last page upon which there is an entry?

2845 Same objection.

A. No, I think there are some entries subsequent to the stockholder's meeting of 1911. Perhaps I am wrong about that. The stockholders' meeting of 1911 is recorded on pages 239 and 240 and there appears to be nothing later than that, but here are the minutes of the later meeting which have not yet been recorded in the book.

Q. I will get those later on, I am getting at what is in this book.

A. I have here directors' meeting April 24, 1911, May 27, 1911, June 26, 1911, July 24, 1911, but they have not been entered in the book yet.

Q. These are not stockholders' meetings?

Same objection.

A. No, these are all directors' meetings.

Q. I am talking about stockholders' meetings.

Same objection.

A. Been no stockholders' meetings since the meeting of April 14, 1911.

Q. Now the first meeting that you refer to is on page 1 of the book just identified and that was held March 1, 1906.

Same objection.

A. That is my recollection, you have the book before you.

Q. At the stockholders meeting held on the 2d day of April, 1907, there were no stockholders present were there?

Same objection.

A. You have the record before you.

Q. Nobody present but Mr. Haines and Mr. Keffer was there.

Same objection.

A. It appears that all of the stockholders of record were present by proxy.

Q. I am talking about stockholders that were present in person.

2846 Same objection.

A. No, there appear to have been none present in person, they all sent in their proxies.

Q. And the meeting was held by Mr. Haines and Mr. Keffer.

Same objection.

A. Yes, sir.

Q. And who was Mr. Keffer?

Same objection.

A. Mr. Keffer was at that time and still is I think, I know assistant secretary of the Des Moines Gas Co.

Q. He is not an officer in any way of the U. G. I.?

Same objection.

A. No.

Q. But he was assistant secretary of the Des Moines Gas Co.?

Same objection.

A. Yes, sir.

Q. Now as to all these other stockholders' meetings the same thing is true, there were no stockholders' present in person were there

Same objection.

A. It appears by the record of the annual stockholders' meeting April 7, 1908, which is recorded on pages 129 and 130 that all of the stockholders were present by proxy but none in person.

Q. How about the next meeting held, were any of them here in person.

Same objection.

A. At the opening there were conducting that meeting, Mr. Janzen Haines called the meeting to order and on motion was chosen chairman of the meeting. Mr. Free P. Carr was chosen secretary of the meeting.

Q. Were there were no stockholders present any way?

Same objection.

2847 A. They were all present by proxy.

Q. I mean in person.

Same objection.

A. Not personally, no.

Q. 166 is the next page.

A. 166 stockholders' annual meeting held April 6, 1909, it appears that all stockholders were present by proxy but none present in person.

Q. Who conducted the meeting?

Same objection.

A. I read from the record, Mr. Jansen Haines called the meeting to order and on motion was chosen chairman of the meeting. Mr. Fred P. Carr was chosen secretary of the meeting.

Q. I suppose Mr. Carr was attorney for some of the stockholders and Mr. Jansen Haines was an employé of the company?

Same objection.

A. Mr. Carr I believe is Judge Carr's son and a member of his firm and the firm are attorneys for the Des Moines Gas Company.

Q. Mr. Haines was an employé of the company?

Same objection.

A. Yes, sir. And Mr. Carr was a member of the firm who are attorneys for the company.

Q. Now how is it with Mr. Keffer, was he a stockholder?

Same objection.

A. No he is not a stockholder.

Q. Never was?

Same objection.

A. Not to my knowledge.

Q. Now the next meeting.

Same objection.

2848 A. Page 204 annual stockholders' meeting April 5, 1910.
Q. Any of the stockholders present in person?

Same objection.

A. Yes, sir.

Q. Who was present in person?

Same objection.

A. George H. Carr.

Q. Anybody else?

Same objection.

A. No all the rest present by proxy.

Q. Now the next one.

Same objection.

A. Page 239 annual stockholders' meeting April 4, 1911.

Q. Now as to all of these meetings the business of the meeting with the exception of one where you say a stockholder was present in person and the meeting of March 1906 was conducted by employés of the company here in Des Moines?

Same objection.

A. Or attorneys, yes.

Q. Now I wish you would turn to the record if there is any such in that book covering the approval of the purchase of holder No. 20 I think it is.

Same objection.

A. I don't think I know which holder that is.

Q. It is the large one. You have it?

A. No, I don't find any such record.

Q. Now within the last five years say, what part of this apparatus down here has been authorized by the stockholders or directors, the important part as shown by your book you have before you.

Same objection.

2849 A. The authorizations in the period you mention are principally for extensions of mains. I did not find any very large pieces of apparatus in that time.

Q. Did you find anything said about holder No. 20.

Same objection.

A. No.

Q. I wish you would take the other book, Capital City Gas Light Co. minute book and turn to 1901 and 1902 and see if you can find holder No. 20 in there or anywhere since that date?

Same objection.

A. No I don't find anything in the minute book of the capital city gas light company minute book No. 2. I commenced with meeting of January 16, 1901 and ran through to the last meeting in the book which is February 28, 1906.

Q. You found no record of it there?

Same objection.

A. No.

Q. And none in the record book since 1906?

A. No.

Q. Now take up another matter a moment, at what meeting was Mr. Haines elected president of this company?

Same objection.

A. At the meeting held early in July the minutes of which I have in my room at the hotel but they have not been recorded yet. I don't remember the exact date, it was early in July, quite early in July.

Q. Where was the meeting held?

Same objection.

A. Philadelphia.

Q. And why was the change made?

Same objection.

2850 A. Because the directors thought that Mr. Haines' management of the property, his good work in the city of which

by the way Dr. Marks has spoken, merited promotion.

Q. Have you given us the real and only reason?

Same objection.

A. Yes, sir.

Q. And what was done about the salary?

Same objection.

A. Action was had at that meeting making Mr. Haines' salary as president the same as his salary as manager had been.

Q. That is there was no change in the salary?

Same objection.

A. No change in the salary.

Q. How about this salary that was voted to Bodine, does that go on just the same?

Same objection.

A. He was made I think 1st vice president and the salary which he had heretofore received as president was continued to his office as first vice president.

Q. Moved him down a notch or two but left his salary at the same point?

Same objection.

A. Yes, sir.

Q. Was it about the time these several salaries were voted that there was a general raise in the salaries up at the office, was that all done about the same time?

A. That was November 1909 wasn't it?

Q. The memorandum I have here is commencing November 1, 1909, I don't have the memorandum as to the date of the meeting.

A. That was at the meeting of October 20, 1909.

2851 Q. That was about a month preceding the time when these salaries were voted to the Philadelphia gentlemen?

Same objection.

A. No, you misunderstood me. The salaries to which you have reference were authorized at the meeting of October 20, 1909, the salaries became effective November 1, 1909.

Q. It was then at the same time that you had this matter up generally as to all these salaries that the raise was made up in the office.

Same objection.

A. No. That was acted on as I said at the meeting October 20, 1909 and what I suppose you refer to as a general raise in the office salaries was acted on at the meeting of February 28, 1910, and that was retroactive and the increase went into effect as of January 1, 1910.

Q. What do you mean — retroactive, that is you decided they ought to have had this raise sooner?

Same objection.

A. Well I will read you the minute- from the meeting of February 28, 1910. Approves increase in salaries amounting to \$3,340 per year effective January 1, 1910, as follows: Then follows a list of the names, occupation, and the old rate per month and the new rate per month, total amount of \$3,340 per year.

Q. So as a matter of fact beginning about January 1, 1910, the total increase in the salary list up here of the Des Moines Gas Company was upwards of \$13,000?

Same objection.

A. Yes, \$13,040.

Q. And you say that the company was actuated in its liberality in that direction by the fact that the gas company here at 2852 Des Moines was getting prosperous and could afford it.

Same objection.

A. Oh no I didn't say that.

Q. Well, what did you say about that?

Same objection.

A. In its liberality in increasing these salaries in an amount or total of \$3,340 a year?

Q. No, all of it, \$13,340?

Same objection.

A. With respect to the total of \$10,000 a year I think I did say that the services of the United Gas Company's organization had been given for a great many years without compensation, and that it was thought that the company had at that time reached a point where it could afford to pay an appropriate compensation for these services. With respect to this increase amounting to \$3,340 a year which was distributed between fourteen different employes I said no such thing but I would say however, that these increases were given because merited by the services that the employes had rendered.

Q. What per cent was the increase of the particular salaries that are covered in that \$3,300.

Same objection.

A. If I have calculatee it correctly a shade over 12 per cent.

Q. How much.

A. A little over 12 per cent.

Q. Now without going into the particular salaries what was the total salary list of the Des Moines Gas Co. before these raises and before this \$10,000?

A. I can't tell you.

Q. You must have had it there to figure that per cent.

2853 Same objection.

A. This is not the total salary list this is the salary of the 14 employes.

Q. I am talking about salary and not wages, men that were drawing salary and whose pay was increased?

Same objection.

A. Well there were other- whose pay was not increased at this time, this is not the full salary list.

Q. What was the total of the list there before the increased were made?

Same objection.

A. As I made it, the total in this list was \$1,446.67 a month and it was increased by this action to \$1,725 a month.

Q. Do you know what the total salary list of the office was, I don't mean boys that you would call working for wages, but the salary list as distinguished from the wage list?

Same objection.

A. I do not.

COURT: Does that include the parties that the \$10,000 was voted to?

A. No, sir.

COURT: Just employes of the company?

A. Officers and employes of the company other than the parties to whom the \$10,000 was voted.

Q. Just give us, not the names of the persons, but the title?

Same objection.

A. Manager, commercial agent, head salesman, five salesmen, demonstrator, saleswoman, two clerks in the new business department cadet engineer and night fireman.

Q. When you say two clerks does that mean two additional clerks or does it mean the salary of two clerks was increasee?

Same objection.

2854 A. Means salary of two clerks was increased, one was increased from \$35 to \$45 a month and the other from \$25 to \$335 per month, an increase of \$10 a month in each case.

Q. You mean the \$3,000 and a fraction that you give me there represents increases altogether and no new salaries, that is I mean no new independent salaries.

Same objection.

A. Yes, all increases.

Q. Now was the force increased largely about that time?

Same objection.

A. I don't know, it does not appear from this record that it was.

Q. Do you know independently of the record that it was or was not?

A. I beg your pardon, I see on the minutes of this same meeting on the same page that they authorized the employment of two additional solicitors and one special lighting man.

Q. How many solicitors had they just prior to that?

Same objection.

A. I don't know.

Q. Could you find out right away from the record there?

Same objection.

A. No, I think not.

Q. Now these solicitors, what is their business?

Same objection.

A. Briefly expressed they canvass for new business, they go out on the streets and go from house to house trying to interest the people in gas for cooking or if people are not using gas for lighting they try to interest them in that or if they find a house where gas is not being used for any purpose they try to interest the householder in the use of gas for as many purposes as they can. In general they are soliciting new business and endeavoring 2855 to retain old business as against the competition of other forms of lighting and other fuels.

Q. On this page or in this minute book beginning on page 199 are found here if I understand your testimony so far correctly the minutes of the directors' meetings held in Philadelphia on the 28th day of February 1910 and at which Mr. Lewis Lilley acted as secretary, is that right?

Same objection.

A. You have the book before you general, I can't see it from here.

Q. I wondered if you had noticed the record sufficiently so you could state that?

Same objection.

A. No.

Q. Were you present at that meeting do you remember?

Same objection.

A. Will you tell me from the record whether it appears I was there.

Q. Your name is not in the list of those present?

A. Then I was not there

Q. It says vice president Clark and directors Lilley and Thompson.

A. Then I was not there.

Q. Were the salaries of all these people to date from January first or only these increases?

Same objection.

A. Will you please read me what the record says?

Q. It says approved increases of salaries amounting to \$3,340 per year effective January 1, 1910, as follows; and then follows the parties.

Same objection.

A. That means that the increases were to date from January 1, 1910.

Q. But does not apply to any of these other persons that were authorized at that time as additional employes?

2856 Same objection.

A. Oh no.

Q. Now I notice it says here two additional solicitors \$75 each and one special lighting man \$100 and then follows \$3,000. Does that mean the total salaries for the three persons is \$3,000?

Same objection.

A. If you let me see it I will answer you. Yes, that means that the total salary for the three persons is \$3,000 a year.

Q. Now these additional employes, the additional solicitors and this additional or this special lighting man were they authorized because of the increases and drawing business of the company?

Same objection.

A. No, I should say they were authorized to try to increase the business.

Q. That was the purpose of it rather than to meet any depressing demand for them at the time, is that right?

Same objection.

A. These solicitors and special lighting man are employed as employes who seek to increase the business.

Q. What does the special lighting man do, what is his business.

Same objection.

A. He is much the same as a solicitor only he is rather a higher class man and he would occupy himself pretty largely with what we call commercial lighting as distinguished from domestic lighting. That is store lighting, he would canvas among the business houses and try to get them to use gas in arc lamps or inverted incandescence for lighting their places of business, try to persuade them it was better or cheaper than electricity so it required rather a high class man to do that, higher than a man who did house to house canvassing in the residence parts of the city.

Q. You dropped a remark once or twice in your answers in 2857 explaining this new salary list that the United Gas Improvement Co. had never had any compensation for services rendered to the Des Moines Gas Company. Is that exactly correct?

Same objection.

A. Well speaking in the large it is. There may have been some—in fact I noticed in reading the minute book of the old Capital City Gas Light Company that there was a payment made back in 1901 or 1902 I think. It appears to have been a payment in part for money advanced and in part for services. But since the organization of the Des Moines Gas Company there have been no compensation of any kind for the services of the organization.

Q. Perhaps I don't know just what you mean by the term in the large. Do you know just how the United Gas Improvement Company got the stock of the Des Moines Gas Company?

Same objection.

A. Yes sir.

Q. Didn't pay anything for it did it?

Same objection.

A. It is difficult or would perhaps be impossible to fix a price per share.

Q. I am not asking you that. Didn't pay anything for it, any of it by share or any other way.

Same objection.

A. Oh yes.

Q. What did it pay for it?

Same objection.

A. When the Des Moines Gas Company was organized as appears by the minute book it issued practically its entire capital stock and certain other securities for the property and assets of the Capital City Gas Light Company and for certain other properties and 2858 assets all of which had cost their owners considerable sums.

Q. What owners?

Same objection.

A. Well the property and assets of the Capital City Gas Light Company were owned by that company and a large majority of that stock was owned by the United Gas Improvement Company.

Q. Yes, all of it wasn't it?

Same objection.

A. It appears by the minutes of the last meeting of the Capital City Gas Light Company that the stockholders were Samuel T. Bodine, George Fuller, Trustee, W. A. McEwen, Louis Lilley, A. B. Cummins, Jansen Haines, and W. B. Keffer.

Q. These men didn't own any stock did they?

Same objection.

A. I think substantially all of it was owned by the United Gas Improvement Company.

Q. And the truth is isn't it that the United Gas Improvement Company acquired the ownership of the 22,500 shares of stock of the so-called Des Moines Gas Company without paying one single dollar for it.

Same objection.

A. No, I would not say that was true.

Q. Will you tell me where they paid one cent or where the Master or counsel can find the record of their having given a single dollar in money for that stock?

Same objection.

A. The United Gas Improvement Company owned a very large majority of the stock of the Capital City Gas Light Company and when the Capital City Gas Light Company distributed the proceeds of the sale of this property after it had sold out to the Des
2859 Moines Gas company this stock with other securities came into the possession of the United Gas Improvement Company as its distributive share of the proceeds of the sale by the Capital City Gas Light Company so that whatever investment the United Gas Improvement Company might have theretofore had or did theretofore have in the securities of the Capital City Gas Light Company was converted into stock and other securities of the Des Moines Gas Company.

Q. Yes, but they didn't have any.

Same objection.

A. Oh yes.

Q. Isn't this what they did when that reorganization took place, every dollar of the value of the property that was represented by the assets of the Capital City Gas Light Company was covered by preferred stock of some \$800,000, I have forgotten exactly the amount and by some bonds or securities amounting to \$300,000 or more and the 22,500 shares of stock were simply issued by the Des Moines Gas Company and turned over to the United Gas Improvement Company which owned the Capital City Gas Light Company and was distributed in the form of dividends to the United Gas Improvement Company.

Same objection.

A. No, I would not say that was so.

Q. Do you say it is not so?

Same objection.

A. Yes, sir.

Q. At the time the transfer was made was there a single dollar of real money put into the transaction?

Same objection.

A. There was——

2860 Q. You can answer that question yes or no can't you?

Same objection.

A. Yes, I can answer it yes or no.

Q. Will you do that please?

Same objection.

A. You mean cash?

Q. I mean cash, yes.

Same objection.

A. No.

Q. Now Mr. Douthirt the Capital City Gas Light Company was capitalized for how much?

Same objection.

A. My recollection is it was 600,000 and 400,000 bonds.

Q. And what was the amount of preferred stock that was issued by the Des Moines Gas Company to take care of the obligations of the Capital City Gas Light Company that represented the money that had gone into it?

Same objection.

A. I can't answer that question for two reasons.

Q. Can you turn to the book there and see?

Same objection.

A. No.

Q. Why not?

Same objection.

A. Well because one reason is you put on to the end of your question the expression "That represented the money that had gone into it."

Q. What is wrong with that, did it represent more than the money?

Same objection.

A. It assumes a certain amount of money as having gone 2861 into the Capital City Gas Light Company.

Q. Well what is the matter with the assumption, isn't it sound?

A. I don't think so.

Q. Well if that is your trouble we will leave off that assumption and you then tell us what was the amount of the preferred stock that was issued and used in this reorganization, where it went to and what the money was used for?

Same objection.

A. If I answer your question categorically it would lead to a misapprehension.

Q. Well I don't want anything of that kind to happen.

A. Well with that as a preliminary I will say there was no preferred stock issued.

Q. Was there any authorized?

Same objection.

A. No.

Q. None at all?

Same objection.

A. No.

Q. And none has been since?

Same objection.

A. No.

Q. Well was there any other stock except the 22,500 shares issued

Same objection.

A. No. Now you are leading to the misapprehension which I feared would follow.

Q. I think I know where you think the trouble is. If you have any explanation to make to that transaction which the question does now permit you to make, you may make it in your own way.

Same objection.

2862 A. The securities which you refer to as preferred stock and which amounted to \$800,000 is not preferred stock. That is the misapprehension I feared might come up.

Q. I don't understand the high finance of it and do not understand the right term. You use such terms as you want to and tell us about it.

Same objection.

A. There was \$800,000 face value issued in what for want of a better name was denominated preferred stock contracts.

Q. Then my trouble was in not adding to the preferred stock the contract part of it. Now there is not a bit of difference between preferred stock contracts and preferred stock as the terms are used generally among business men is there?

Same objection.

A. Yes, I think there is.

Q. There is a contract in both instances is there not?

Same objection.

A. I think there is a decided difference.

Q. Well we won't quarrel about that. There was \$800,000 of these preferred stock contracts issued, that is right is it?

Same objection.

A. That is right.

Q. What became of that?

Same objection.

A. That followed the same course as the 22,500 shares of stock.

Q. Who got it?

Same objection.

A. United Gas Improvement Company.

Q. And what rate of interest did it draw?

Same objection.

A. Six per cent.

2863 Q. Have you one of these stock contracts handy?

Same objection.

A. Yes, sir.

Q. I wish you would have one of them with the other papers I am going to ask you for as we go along?

A. If you will give me the minute book I will show you one.

Q. One in the minute book?

Same objection.

A. Yes, sir. May I read it to the reporter so it may appear in the record.

Q. I would be glad to *here* one of these things read, I have not read it yet.

Same objection.

Des Moines Gas Company.

This contract will entitle ——— to — shares of the par value of \$100 each of preferred capital stock of the Des Moines Gas Company, a corporation organized under the laws of the state of Iowa for which certificates in due form will be issued (upon surrender of this contract) whenever the company shall be authorized by law to issue such preferred stock and the holder hereof shall demand the same. And in the meantime the holder of this contract shall be entitled to all the benefits of a preferred stockholder except the right to vote and shall be paid interest at the rate of six per cent per annum upon a sum equal to the face value of said shares from March 1, 1903, payable semi-annually on the dates and in the manner following, viz:

This contract is transferable only on the books of the company upon its surrender by the registered owner in person or by attorney at the office of the company. Said books will be closed and no transfers will be made thereon from the 1st to the 13th days, both inclusive, of September and March in each year. On the 15th day of each September interest for the half year ended the last day of August last preceding and on the 15th day of each March interest for the half year ended the last day of February last preceding will be paid to the registered owner.

The said preferred stock when issued will entitle the holder thereof to be paid dividends thereon at the rate of six per centum per annum from the date to which interest was last paid under this contract in preference or prior to any dividends to be paid to holders of any other class of stock of the company and this right to dividends shall be cumulative.

Said preferred stock when issued will also entitle the holder thereof in the event of any liquidation or winding up whether
2864 voluntary or involuntary of the assets and affairs of the company to be paid the par value of such preferred stock out of such assets of the proceeds thereof before any part of the same shall be distributed to the holders of stock of any other class.

Having previously given thirty days' notice in writing to the holder thereof by mailing same to his last post office address on its books the company may on any 15th day of September or any 15th day of March at its option relieve and discharge itself in whole or in part from the obligations of this contract upon paying to the holder hereof cash at the rate of \$100 per share for the said preferred stock or such part thereof as the company may elect to which the holder hereof is under the conditions hereof entitled: Provided that when making any such payments the company shall treat the holders of all similar contracts then outstanding alike, that is to say the company shall also on the same date make payment of the

same relative sums to the holders of all such contracts then outstanding.

Nothing herein contained shall prevent the issue of further and additional contracts of similar import.

In witness whereof, etc.

Q. There is a term used there that I don't know that I understand it and I would be glad to have you enlighten me if you will, something about cumulative dividends, what does that mean?

Same objection.

A. Cumulative dividends is an expression quite ordinarily used in connection with expressing the rates or preference of any class of stock or other security that may have other stocks or securities junior to it and it means that if the dividend is not paid in any one year it may accumulate, that is, the company may have to pay it in some succeeding year before the company is free to declare or pay dividends on junior classes of securities. This preference of preferred stock, speaking generally may be either cumulative or non cumulative.

Q. Well in plain language it means don't it that if the dividend is not paid that then dividends on that dividend at the same rate that the share of stock draws shall be paid, isn't that what it means?

Same objection.

A. Not ordinarily, no.

Q. Isn't that what it means here?

Same objection.

A. No.

Q. I mean dividends on the unpaid dividend. For instance suppose there was a thousand dollars due and unpaid and it was carried over unpaid for a year, when your interest there for the next year would be payable it would be six per cent on the principal and six per cent on the deferred dividend wouldn't it?

Same objection.

A. No.

Q. Now isn't that exactly what it means?

Same objection.

A. No. I have known of securities of that class or rather securities possessed of characteristics you are describing, but cumulative dividends never carry interest in case they are unpaid unless it is so specified in the instrument under which the security is created.

Q. Well in this case here it would not be cumulative unless there was something to add to it would it?

Same objection.

A. Oh yes.

Q. In what way?

Same objection.

A. I can perhaps explain it best in this way, a non-cumulative preferred stock is one in which if the dividend is not earned and paid in a given year the stock is entitled to dividend for that year. A cumulative stock is one in which if the dividend is not earned and paid in a particular year the dividend itself but not any further interest or dividends on the dividend must be declared and paid before anything can be paid on a junior security.

Q. What I am trying to get at is just what the earning power of a certificate like that would be and if I understand you now it would simply be the six per cent that it provides for.

Same objection.

A. Yes, sir.

Q. And that cumulative does not mean anything except that the dividend if not paid when due must be paid at some later date.

Same objection.

A. Yes, before anything can be paid on any junior security.

Q. So that the share of stock that you just read would earn six per cent and no more?

Same objection.

A. The share of stock which might be issued under the contract which I have just read might earn six per cent and no more.

Q. Now there was \$800,000 of that kind of stock issued.

Same objection.

A. That sort of contract. I don't want to quibble about the terms with you, general, but I don't think it is proper to call it stock.

Q. Well let's call it stock contract.

A. All right, I will agree with that.

Q. Turned over to the U. G. I.?

Same objection.

A. Ultimately reached there.

2867 Q. Oh well, ultimately, they were there to receive it?

Same objection.

A. Yes, sir.

Q. Now what sort of security or evidence of indebtedness was issued for the 300 and some thousand dollars in addition to that \$800,000?

Same objection.

A. I think the most concise answer I can make to your question is to read you from the minutes exactly what was done.

Q. Well you can tell me without doing that can't you, or if you prefer to read it I don't care.

Same objection.

A. The record is the best evidence I think.

Q. Well sir it is very interesting to me, you can take time to read it if you wish.

Same objection.

A. There was an offer made——

Q. Now don't put anything in, you are reading what is there.

A. —.

PHILADELPHIA, *February 26, 1906.*

Des Moines Gas Company, Des Moines, Iowa.

GENTLEMEN: I am able to procure the conveyance to you of valuable real estate in the city of Des Moines, and in the town of Valley Junction, Polk county, Iowa, and I am also able to procure the conveyance and transfer to your company of the property assets, business and franchises of the Capital City Gas Light Company (except its franchise to be a corporation) as well as the property assets, business and franchise of Jansen Haines and William B. Keffer in the town of Valley Junction, Iowa. The output general business, and earning capacity of said plants are well known to your company. The present bondee indebtedness of the Capital City Gas Light Company consists of Four Hundred thousand dollars (\$400,000) at par of first mortgage six per cent gold bonds secured by mortgage upon the property of the company to the Union Trust Company of New York as trustee which bonds are due January 1, 1907.

I hereby make the following proposition to you:

First. To procure the conveyance, sale and transfer to your company subject to existing contracts and free from all debts and liability except said Four Hundred Thousand dollars (\$400,000) at par of said first mortgage gold bonds, accrued interest thereon and current liabilities, of the entire plant property, real and personal, business, rights, privileges and franchises of the Capital City Gas Light Company, except its franchise to be a corporation.

Second. To procure a conveyance to your company of all these certain lots of ground situate in the city of Des Moines, Polk county, Iowa, and described as follows: Lots numbered three (3) and four (4) in Block K and Lots numbered nine (9) and ten (10) in Block M in Scott & Dean's Addition to the town of Fort Des Moines, now included in the corporate limits of the city of Des Moines.

Third. To procure a sale, conveyance and transfer to your company subject to existing contracts except a certain contract between Jansen Haines and William B. Keffer and George J. Roberts, dated May 1, 1905, for laying mains, etc., the payments under which I hereby agree to make and free from all debts and liability, the entire plant, property real and personal business, rights, privileges and franchises of Jansen Haines and William B. Keffer in the town of Valley Junction, Iowa, including the following real estate situated in said town, Lot numbered nine (9) in Block Fifteen (15) in the First Addition to Valley Junction.

The consideration to be paid by your company to be as follows:

(a) First mortgage five per cent twenty year gold coupon bonds of your company redeemable on any interest date at one hundred-five (105) per centum and interest to the amount of Two Hundred and eighty five thousand Dollars (\$285,000) at par being part of an issue of One Million Five Hundred Thousand Dollars (\$1,500,000) at par of said bonds to be authorized by your company to be secured by mortgage upon the entire property and franchises of your company including all of the same acquired by your company under this proposition as well as that hereafter acquired. Of the remaining One million Two hundred and fifteen thousand dollars (\$1,215,000) at par of said bonds, Four Hundred Thousand Dollars (\$400,000) at par thereof shall be retained by the trustee uncertified until required to purchase or pay for or take up, exchange or replace, said first mortgage bonds of the Capital City Gas Light Company now outstanding and the balance thereof, to-wit, Eight Hundred and Fifteen Thousand Dollars (\$815,000) at par shall be retained by the trustee uncertified and used by the company from time to time only for the purpose of making additions to or extensions or betterments of its plants and for acquiring other plants or property real or personal.

(b) Twenty two Thousand Four Hundred and ninety (22,490) shares of the par value of One Hundred Dollars (\$100.00) out of the authorized issue of Twenty two thousand five hundred (22,500) shares of the capital stock of your company issued to me or upon my order fully paid and non-assessable.

(c) Preferred stock contracts of your company bearing 2869 interest at the rate of six per cent per annum to the total amount of Eight Hundred Thousand Dollars (800,000) at par, said contracts to be in the form herewith submitted.

Respectfully submitted,

W. H. MARSHALL.

Q. Now right at that point, who was W. H. Marshall in his palmy days?

Same objection.

A. If you will eliminate the palmy days——

Q. All right, cut that out.

A. Mr. Marshall is an officer of the United Gas Improvement Co.

Q. Mr. Marshall at that time was an employé of the United Gas Improvement Company?

Same objection.

A. Yes, sir.

Q. And he is yet.

Same objection.

A. Yes, sir.

Q. And his employment is not very important in its nature is it?

Same objection.

A. Well——

Q. He was an office boy at that time wasn't he?

Same objection.

A. Oh by no means.

Q. What was his work?

Same objection.

A. One of the principal accountants of the company

Q. Working for the company on a salary.

Same objection.

2870 A. Yes, sir.

Q. How much of a salary?

A. I don't know.

Q. About how much?

Same objection.

A. I don't know.

Q. Where is he now?

Same objection.

A. I think he is in Philadelphia, he was here last week.

Q. Still working for the U. G. I.?

Same objection.

A. Yes, sir.

Q. On a salary?

Same objection.

A. Yes, sir.

Q. This whole business was carried on in his name, the stock was actually issued to him wasn't it?

Same objection.

A. I don't recall as to that, the stock under the proposition was to be issued to him or upon his order, whether it was issued to him or whether he gave an order to issue it to somebody else, I don't recall.

Q. You know as a matter of fact *he* was actually issued to him and they carried the play to the extent of issuing it to Marshall?

Same objection.

A. I don't know, I can look here and see if there is anything here to indicate it. I would say you were right because — the minutes of the annual stockholders' meeting held April 2, 1907, it appears there were 22,490 shares in the name of W. H. Marshall.

Q. I was not only right, but so far as the books of the Des
2871 Moines gas company is concerned, he still owns it?

Same objection.

A. No, I think not. I think it stands in the name of the United Gas Improvement Company now.

Q. Where do you think that appears in the books of the Des Moines Gas Company?

Same objection.

A. By the minutes of the annual stockholders' meeting held April 6, 1909, which commences on page 166 it appears that the United Gas Improvement Company was the owner of 22,490 shares.

Q. In what way does it appear?

Same objection.

A. Here is a list of the stockholders present by proxy, it appears that Mr. Fred P. Carr held the proxies of Messrs. George H. Carr, Rollin Norris, Earl Thompson and myself. It appears Mr. Jansen Haines held proxies of Mr. Lewis Lilley, Samuel T. Bodine, Walton Clark, United Gas Improvement Company and Randolph Morgan and the number of shares standing in each of these names is specified.

Q. You were never a stockholder were you?

Same objection.

A. There was evidently a share standing in my name.

Q. You didn't even know that a little while ago did you?

Same objection.

A. Probably not.

Q. As a matter of fact you never owned a share in the company did you?

Same objection.

A. No, I never owned a share.

Q. That is true as to several of these names you just read 2872 isn't it?

Same objection.

A. Very likely. By the minutes of the annual stockholders' meeting held April 5, 1910, the record of which commences on page 204 it appears that the United Gas Improvement Company held 22,490 shares which were represented by Mr. Haines as proxy and voted by him.

Q. The name United Gas Improvement Company, don't appear there at all does it?

Same objection.

A. Yes, sir.

Q. On that page you have just read?

Same objection.

A. Yes, sir.

Q. As represented by these names you read?

Same objection.

A. No, the name United Gas Improvement Company appears right here.

Q. As the owner of this stock?

Same objection.

A. Yes, sir.

Q. Is there any other book in this company that shows that that you know of?

Same objection.

A. Yes, sir.

Q. What other book?

A. The stock certificate book and stock ledger show that.

Q. Where are they?

Same objection.

A. They are in Philadelphia I think.

Q. Either of them here?

Same objection.

2873 A. I think not, both in Philadelphia.

Q. What other books in Philadelphia that have in them accounts of the Des Moines Gas Co.?

Same objection and because of the use there of "other" and the assumption that this stock certificate book and stock ledger had accounts between the U. G. I. Company and the D. M. Gas Company.

A. That book would simply have an account on it showing the number of shares of record in each name.

Q. Now to get back to the question what other books or records are kept in Philadelphia that involve the business of the Des Moines Gas Company other than the stock books and other books you have just referred to.

Same objection.

A. My impression is that we have there a ledger which would be an exact duplicate of the ledgers in the office here.

Q. In other words you have in Philadelphia a set of books that involved the business of the Des Moines Gas Company, that is right isn't it?

Same objection.

A. Why yes, the journal entries are sent on from here every month one of the 26 things Mr. Haines tried to tell you about.

Q. Mr. Haines didn't try to tell me about any books in Philadelphia.

Same objection.

A. Perhaps Mr. Haines didn't know about them. Information is sent by Mr. Haines or his subordinates to Philadelphia from which it is possible to reproduce in Philadelphia the general ledger that is here.

Q. If I were to go to Philadelphia next week and want to
2874 take the deposition of the officers of the United Gas Improvement Company with respect to the business of the Des Moines Company they could produce the records and books there couldn't they to show just what was going on in Des Moines?

Same objection.

A. In a general way, yes.

Q. Now to get back to this interesting document and communication that you read from Mr. Marshall, I notice that he refers in there to some property at Valley Junction said to belong to Jansen Haines and W. B. Keffer. They didn't own any property in Valley Junction did they?

Same objection.

A. Only they had legal title of it, that was all.

Q. Well it belonged to the United Gas Improvement Company did it not?

Same objection.

A. The United Gas Improvement Company furnished the money to put in the distribution system out there.

Q. Not only furnished it, but it was done for them by their employees here in Des Moines was it not, purchased by them?

Mr. GUERNSEY: Who is them, the United Gas Improvement Company or Des Moines Gas Company?

(Question withdrawn.)

Q. Mr. Jansen Haines and Mr. W. B. Keffer were not in the gas business — Valley Junction on their own account were they?

A. No, they were simply conducting it there until such time as the Des Moines Gas Co. could be organized and issue securities and raise the money which was necessary to make the installation out there.

Q. They didn't get any \$45,000 did they for their interest in that business?

Same objection.

A. Oh no.

Q. They didn't get anything did they?

Same objection.

A. No, they didn't get anything.

Q. The books indicate they did don't they?

Same objection.

A. Well the books indicate I suppose that something was paid to them as the holders of the legal title of property out there.

Q. But as a matter of fact there was not a dollar paid was there?

Same objection.

A. Oh I think so.

Q. To them?

Same objection.

A. To them or their order.

Q. Well where did it go to, that is what I want to know.

Same objection.

A. Oh of course it finally came back to the same old place.

Q. It finally didn't get anywhere did it, it never started, isn't that the truth of it? Take this \$285,000 that you referred to there,

there was \$45,000 in addition to that to cover the Valley Junction business.

Same objection.

Q. Well was the 45,000 included in the \$285,000?

A. I don't know what 45,000 you are talking about.

Q. You ought to know, you were a stockholder and were represented at the meeting that disposed of it wasn't you, or did your proxy do that?

Same objection.

A. No, I was not even a nominal stockholder at that time.

2876 Q. What became of the \$285,000 you refer to, — a record there how it was distributed?

Same objection.

A. That would appear in the record of—the record of the Des Moines Gas Company of course would show nothing about that distribution.

Q. I don't care which record you use.

A. You have got hold of the figure \$45,000 that I don't understand.

Q. It will be clear before we get through with the examination I hope. What became of the 285,000, can you tell us?

Same objection.

A. The \$285,000 to which you refer was in the form of bonds.

Q. I know, but how was it distributed, how were the bonds distributed, who got them.

Same objection.

A. It appears by the record of the director's meeting of the Capital City Gas Light Company held February 28, 1906, which commences on page 183 of Volume 2, that the Capital City Gas Light Company got \$240,000 out of the \$285,000 of bonds.

Q. Now where did the \$45,000 go.

Same objection.

A. It does not appear by the record of either company, but my recollection is that that went to Messrs. Haines and Keffler for the Valley Junction property.

Q. That is it did on paper you mean?

Same objection.

A. Yes, sir.

Q. As a matter of fact they didn't get any part of these bonds did they?

Same objection.

A. Oh no.

2877 Q. They were never issued were they?

Same objection.

A. Oh yes, they were issued.

Q. They were actually issued?

Same objection.

A. Oh yes.

Q. And who got them, the parties that issued them?

Same objection.

A. No, they were issued by the Des Moines Gas Co.

Q. Well who got them?

Same objection.

A. They went in the first instance according to my best recollection to Haines and Keffer and from them to the United Gas Improvement Co.

Q. So that \$45,000 now don't seem mysterious to you?

Same objection.

A. No, I see where it comes in now, the difference between 240 and 285.

Q. The \$45,000 you think was distributed through Haines and Keffer and finally to the United Gas Improvement Company and what became of the \$240,000?

Same objection.

A. May I say first with respect to the -45,000 that is simply my recollection, not a matter of record here.

Q. Is it a matter of record anywhere you know of?

Same objection.

A. I don't know, very likely is.

Q. If it is not there where would we find it. You are secretary of the company, maybe you can help us located —.

Same objection.

A. I think you would probably find it on some of the 2878 books in Philadelphia.

Q. How will we get that on some of the books in Philadelphia, do you know anyway we can get them here?

A. No, I think you will have to go there.

Q. Didn't you think it quite important to have them here?

Same objection.

A. Didn't occur to me so no.

Q. You know you were coming out here to try a very important law suit that involved your gas company or the gas company in which you are an employé or officer didn't you?

A. Yes, sir.

Q. And you are a practicing attorney aren't you?

A. No.

Q. I thought you said here this morning you were a member of three bars.

Same objection.

A. I am.

Q. But you do not practice, is that what you mean?

Same objection.

A. That is what I mean, yes.

Q. You are a nonactive member?

A. Yes, you might put it that way.

Q. You say now you didn't think it was important to bring out the records that would open up this entire transaction so that everybody would understand it as well as you do?

Same objection.

A. No, I didn't think it was important.

Q. Well what part of the business of these concerns did you think ought to be suppressed and covered up.

Same objection.

A. None of it.

2879 Q. Well how did you expect the court or Master or anybody else to know whether your property the company property was taken without fair compensation unless the Master knew something about your property and how you got it, what was involved in it?

Same objection.

A. My thought was that was by proper testimony the Master would find the reasonable present value of the property which is devoted to the public use, which could be ascertained by proper testimony without any regard whatever to what securities are outstanding against that property and further, that the Master could find by proper testimony from the books which are here in Des Moines all about the operating expenses of the company and the net revenues and with full information before him with respect to these matters he would be able to determine.

Q. You have dictated in a sense have you not the plan of this entire trial, you have been in it from the beginning have you not, I mean the complainant's side of it?

Same objection.

A. I have helped all I could but I would not assume to say that I have dictated the plan of the entire trial.

Q. Is it not true Mr. Louthirt that from the very beginning you have been active and busy in the preparation of this law suit and in having it presented to the Master in the way it has been presented?

Same objection.

A. Yes, that is true.

Q. You commenced that work a long long time ago didn't you?

Same objection.

A. Yes; I commenced to be very actively interested in the situation as long ago as last November.

2880 Q. Yes, and longer ago than that didn't you?

Same objection.

A. No, because it didn't arise, there was nothing to indicate it before that time.

Q. Didn't you begin to get ready for this very law suit longer ago than the 1st of last November?

Same objection.

A. No.

Q. Didn't you begin to build up this method of fixing the values of the complainant's property longer ago than the 1st of last November?

Same objection.

A. No.

Q. When you left Philadelphia to come out here was it your thought that you could properly try and present this case to the court and to the Master without producing all of the books that involved all of the transactions of the Des Moines Gas Company.

Same objection.

A. I thought it would be proper to produce all of the books that involved all of the transaction- of the Des Moines Gas Company.

Q. Yes, now there are part of them in Philadelphia.

Same objection.

A. No. Well the stock ledger, yes, is in Philadelphia.

Q. That is all that is there is it?

Same objection.

A. All of the books that involves transactions of the Des Moines Gas Co.

Q. How about this \$240,000, where is the book that shows what became of that, of the \$240,000 of bonds?

Same objection.

A. Books of the Capital City Gas Light Co. show it I think.

2881 Q. Do they show it?

A. I think so.

Q. Is there a duplicate set of the Capital City Gas Light Company's books in Philadelphia?

Same objection.

A. I don't know whether a duplicate or not, the originals are in Des Moines.

Q. You say you don't know whether there is a duplicate set or not.

A. No, I do not.

Q. What is the name of the comptroller that is here at this trial?

A. You mean Mr. Curran?

Q. What is his business.

A. He is comptroller of the United Gas Improvement Company.

Q. As such what is his work?

Same objection.

A. He has general charge of all the accounts, general supervision I would rather say of the accounting of the various companies in which the United Gas Improvement Company is interested and he has also some to do with the detailed accounting of the United Gas Improvement Co.

Q. I want to say to you at this point that we want to use Mr. Curran before this case is closed as a witness so we expect him to be here. I find on page 201 of this Des Moines Gas Company stockholders' and directors' minutes No. 1, the following language: Sub-head, title Betterment system. The vice president submitted a statement prepared by the treasurer showing that the company had expended in making additions to or extensions or betterments of its plants or acquiring other plants or property real or personal from March 1, 1906 to December 21, 1909, the sum of \$53,2882 567.07 and showing the various items comprising this sum which statement was read and ordered spread upon the minutes and is as follows: Expenditures made for additions to extensions or betterments of plants of the Des Moines Gas Company or for acquiring other plants or property real or personal from March 1, 1906, to December 31, 1909, real estate \$438.61 extension and improvement of works, \$59,045.26 street lamp extensions \$2,039.65, street mains \$192,479.34, meters \$55,649.88; services \$53,914.33; Total \$363,567.07. Were you present at the meeting when that statement was presented?

Same objection.

A. Will you refer to the record and see if I was?

Q. The record is signed by Lewis Lilley and on page 201 it gives as present Vice president Clark, directors' Lilley and Thomson.

A. Then I was not there.

Q. Is that the only way you have of knowing you were not there?

Same objection.

A. Yes, sir. Well I could look at my diary and see whether I was in Philadelphia on that date.

Q. You knew that record existed didn't you?

Same objection.

A. Oh I suppose so, yes.

Q. Why was all this agitation here the other morning about letting us have this book, do you know?

Same objection.

A. No.

Q. Do you know why that record was not introduced in evidence by the complainant?

Same objection.

A. No I don't know.

2883 Q. Can you think of any reason why it was not offered?

Same objection.

A. Yes, I can think of a reason.

Q. Why?

Same objection.

A. Well the figures which you have just read can be very easily checked up and verified from the books right here in Des Moines and the city's accountants have been working on them since July.

Q. Was that the reason?

A. You asked me if I could imagine a reason?

Q. Was that the reason you didn't have them offered?

Same objection.

A. You asked me if I could think of a reason.

Q. Was that your reason, was that your reason for not having these records introduced?

Same objection.

A. Why no, I never thought of introducing the records, never thought of it one way or the other, so I could not have had any reason.

Q. You have just stated that these figures are on the books of the Des Moines Gas Co., that is not so is it?

A. I didn't state that.

Q. That is the city might spend several months in checking through the separate items of your books.

A. No, I mean that an accountant could probably verify these figures from the books in less than an hour.

Q. Can you now give us any reason why you did not want this book offered and turned over to us a day or two ago when we asked for it, or even the city's counsel allowed to look it over?

Same objection.

2884 A. No, I cannot.

Q. You remember this Mr. Cook that was on the witness stand a few days ago from Chicago?

A. Yes, sir.

Q. You remember his testimony about bonds and the N. W. Harris & Company's refusal to do business in Iowa, that is in a general way, you remember that testimony?

Same objection.

A. I have heard so much testimony I would not want to say that I had a very concise recollection of it without reading it.

Q. Who bought the last issue of the bonds of the Des Moines Gas Co.?

Same objection.

A. If you will give me the book you have there.

Q. It was the N. W. Harris company was it not?

A. Oh no. They have not bought any bonds, never did buy any bonds of the Des Moines Gas Company.

Q. Never at any time?

Same objection.

A. No.

Q. They haven't any now?

Same objection.

A. Not that I know of.

Mr. BYERS: I wish you would produce for us in the morning the contract that the Des Moines Gas Company had with Mr. William Brereton covering one of the buildings down here at the plant, you can find — can you not?

A. I don't know.

(Des Moines Gas Company minute book marked defendant's Exhibit No. 27.)

Q. The book I hold in my hand called Capital City Gas Light Co. No. 1, stockholders' and directors' minutes is the minute book of that company beginning some time in the 70's?

A. Beginning with the meeting held first September 20, 1875.

Mr. BYERS: Defendant at this time offers in evidence Exhibit 25 and 26 being stockholders' and directors' minute book of the Capital City Gas Light Company Nos. 1 and 2.

Objected to as irrelevant and immaterial because having no bearing whatever upon the ultimate questions that are involved in this controversy.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

2886

Thursday Forenoon Session.

AUGUST 24, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

HENRY I. LEA, re-called for further cross examination, examined by Hon. H. W. Byers, testified:

Q. Mr. Lea, one of the matters that you were asked to furnish was the figures, memoranda, with the figures upon which you based your table of averages on page 12 of your report, the meters on the installment basis.

A. That is all shown in Exhibit 8; that is the only information I have on the meters.

Q. Just what was shown there?

A. Yes.

Q. That is where you got the figures?

A. That is the only source of my information of the age of the mains, services or meters, just those three pages in Exhibit 8.

Q. Now on page 1274 of your examination, you were to furnish me the figures showing the estimated growth of the business from 1910 to 1918 with gas at 90 cents—did you work that out?

A. No, I have not done that.

Q. That was to be worked out on the plan of one of your curved sheets, if you remember, but you haven't done that?

A. No, I have not done that.

Q. And did you get your report from your office, the Beatrice report?

A. I think so.

Q. I have had this one certified, maybe by glancing over it you can tell about it. (Report handed to witness.)

A. I had mine sent out here, but I don't have it with me this mor-.

2887 Q. You will notice here that the City Clerk has certified this is an exact copy of the report as it is filed there?

A. Yes, this looks like a copy of my report.

Q. Now, where did you get your base figures, if that is the correct term, for your cast iron valuations in the report that has been filed here and marked Exhibit 20?

A. That would appear in my details, but I haven't that here.

Q. Can you tell me where you got your base figures for your cast iron valuations in that report?

A. I don't remember any of the details; I would have to get that from my office.

Q. I mean from what sources did you get the prices?

A. From probably the United States Cast Iron Pipe Foundry Company.

Q. Is that where you got them?

A. I wouldn't say without my notes.

Q. Didn't you get that information out of Exhibit 8?

A. Certainly not. I used Exhibit 8 in absolutely no way except to abstract three pages showing ages of mains, meters and services.

Q. Do you have the figures somewhere in the memoranda that shows where you got your cast iron pipe from?

A. They must be in my notes.

Q. I wish you would send them here—you won't need to come back to bring them.

A. All you want to know is the source—

Q. I want the memoranda you used making up your cast iron pipe valuations.

A. Do you wish the pipe by itself?

Q. As I remember it, you show the cost—for instance, here is the way you report is made up, reading from page 89, under the table sub-headed "Depreciation system street mains, size 2½ inches
2888 and under 35,527 feet?

A. That means the average taken as 2 inch pipe; I have taken 2½ inch and under.

Q. And you have 25,527 feet in length here and the net construction cost of the pipe laid in unpaved streets. Under that table you have \$5,373. Now that represents the net construction cost of the pipe laid; is that what you mean to show by the report?

A. You are referring to the 2½ inch and under, 25,527, and no pavement?

Q. No pavement, no.

A. That pipe is totaled .2105 per foot.

Q. Do you mean 21 cents?

A. Yes.

Q. Just a minute there, please. Read the question, Mr. Reporter.

(Question beginning with line 4 read.)

A. Yes.

Q. So that that covers the cost of the pipe, construction cost, and the cost of laying it?

A. It does, subject to some errors which I discovered in the unit prices of the 3 inch pipe, in the brick on concrete.

Q. I haven't got to that now—I am dealing entirely now with the pipe that is not under pavement as shown in your report; I am talking about this size now.

A. That is correct. \$5.373 represents net construction cost of pipe and labor, finished job in the street, no pavement.

Q. Now how much would that be a ton or a pound?

A. Well that pipe weighs 3.61 pounds per foot. The cost of the pipe based on Crane & Company's price list, less 78.2 per cent, 7.85 cents.

2889 Q. A pound? Q. I want to know what it is per ton.

A. We don't buy that by the ton ordinarily.

Q. I find that it appears here by the ton in some of the records and I want to see what it is by the ton.

A. We can get it. (Witness makes computation.) Per ton of 2,000 pounds that pipe is \$43.48. That is 2 inch wrought pipe, not cast iron.

Q. Well, is that what you intended it to represent here in your report, wrought iron?

A. Not wrought iron; wrought pipe.

Q. Well it is not so stated.

A. That is always understood among gas men; we don't have to specify, because there is no cast iron pipe made of that size; 4 inch is the smallest cast iron pipe made for gas uses.

Q. Well we are not gas men here. That is \$43.48 a ton, and how much did you say a foot?

A. 7.85 cents.

The MASTER: What was the 21 cents?

A. That was the total cost for pipe, fittings, store room, labor, laying, excavation, etc.

Q. So that the labor then and overhead charges, whatever they are in that item, represent about in round numbers 14 cents?

A. I would rather give it to you in items.

Q. All right.

A. Pipe weighs 3.61 pounds per lineal foot; pipe itself would cost f. o. b. Des Moines 7.85 per lineal foot; the fittings cost $4\frac{1}{2}$ per cent of the cost of the pipe alone or .35 of one cent; store room cost would be $2\frac{1}{2}$ of the combined cost of pipe and fittings or .21 of a cent per lineal foot. The cost of hauling and handling would be $\frac{1}{2}$ of a cent.

2890 Q. You are reading from some memoranda?

A. Yes, I am reading from my report. I said $\frac{1}{2}$ of a cent for hauling and handling, and labor in laying 1.3 cents, cost of excavation and refilling, which is based on a trench of the width of 22 inches with an average depth of 36 inches 45 cents per cubic yard for excavation and refilling 9.16 cents, and the miscellaneous items composed of tools, 4 per cent, cutting pipe 3 per cent, lumber and incidental supplies 3 per cent, delays 5 per cent, making a total of 15 per cent, which is added to all the above items, except pipe and fittings, making a total for miscellaneous of 1.68 cents which added to the previous amounts gives you a total of 21.05 cents per lineal foot.

Q. What is the total of the amount less the pipe?

A. That would be pipe fittings 7.81 cents, for pipe; fittings .35 cents, total 8.3 per lineal foot, total cost of pipe laid 21.05 cents, from which you deduct 8.2 cents, leaving 12.85 cents per lineal foot to cover the cost to put in the wrought iron pipe laid in unpaved streets, after you had deducted from the total cost of pipe and fittings.

MR. GUERNSEY: I would like to ask you again for those items.

A. Pipe 7.85; fittings 1.35; store room .21; hauling and handling .50 labor laying 1.3; excavation refilling 9.16; miscellaneous 1.68.

Q. Now you have proceeded with that same method, with that same substantial addition to the cost of the pipe and fittings throughout the distribution system where the pipe is not under paving?

A. Yes.

Q. And all of these base figures, as I understand you, were furnished to you by somebody for the Company?

A. No, sir; none of them were.

Q. Where did you get them?

2891 A. From my own records and experience. I got no figures as to the cost of main laying from the company; hadn't seen any until my work was done.

Q. You mentioned a moment ago Crane & Company; is Crane & Company in business in Des Moines?

A. I don't know; they have some jobbing houses.

Q. They have the western headquarters at Omaha?

A. Yes, I think so.

Q. Do they handle this class of pipe?

A. They make it.

Q. Is that true of all these sizes?

A. No, they do not make any cast iron. They make wrought iron of larger sizes than we have here, but that is for steam use.

Q. Now take the 3 inch wrought iron, wouldn't it be higher than the 2 inch?

A. In cost you mean?

Q. Yes.

A. Certainly.

Q. What per cent difference?

A. It would be over twice as expensive.

Q. It would be no more expensive as to the other items?

A. Certainly; it is very much harder to put together.

Q. Takes a larger ditch?

A. No, but it is hard to put together.

Q. You used the same substantial method and you figure out how much more it would cost to put it together?

A. Yes, figure each of the items.

Q. And that represented your judgment about it and not figures furnished you?

A. Not by the Des Moines Gas Company.

2892 Q. By anybody?

A. I wouldn't say that; I have obtained figures from a great many people.

Q. I mean as to these figures?

A. Oh, no.

Q. In 4 inch cast iron, the difference there too would be largely—

A. While you are on that, let me point out an error I discovered. The 3 inch wrought iron pipe under brick on concrete pavement was figured 80.32 cents for the pavement alone; the total cost was given as 1.114 cents, which should have been 1.4 cents.

Q. A mistake of ten cents?

A. Yes, under brick on concrete. Then there was another mistake on that 3 inch. An even dollar was dropped out of the record on the inch and a quarter under wood block on concrete.

The MASTER: What difference does that make?

A. A total difference of about \$560, against the company as the total of these errors which I found. I found those on the 3 inch pipe.

Q. That one item you had figured 10 cents too high?

A. Yes, 10 cents too high.

The MASTER:

Q. That is the difference in two mistakes?

A. Yes, two or three.

Q. Now, going past the wrought iron to the first cast iron pipe of 4 inch you have 350,664 feet at \$195,074. Now do you know where you got your value or the price of cast iron for that item and when you got it?

A. Yes.

Q. Where did you get it?

A. I got it by looking up the records of the fluctuation of cast iron pipe prices for a good many years.

2893 Q. What record did you look up?

A. The records as shown in the Iron Age.

Q. For what year?

A. A great many years; I have forgotten how many, all tabulated by Mr. Alvord some time ago.

Q. Mr. Alvord's tabulation was on water pipe?

A. Yes.

Q. What did you add?

A. One dollar ton.

Q. You used Mr. Alvord's water pipe schedule he used in the water case?

A. No, that is one of the things to which I referred.

Q. That is one of the things you had upon which you based your judgment?

A. Yes, showing 4 inch pipe quotations for the first week in each month, as taken from the Iron Age, beginning with the 1st of January 1885 and carried up to March 1911. That also shows 16 inch and larger pipe quotations, and also shows the average prices of lettings in Chicago and vicinity and the average price of southern coated #1 pig iron quotations.

Q. So that if two engineers were to take the Iron Age and Alvord's table and get at the average price of that class of pipe and add a dollar to it, there ought not to be any difference in their results?

A. Not with that result. I am not saying that is the figure I used.

Q. It is the figure you used?

A. I don't think so.

Q. Just take the 4 inch pipe, what did Mr. Alvord price it here in Des Moines at the time of the Des Moines Water case?

A. I don't know.

2994 Q. You have his schedule here?

A. I have his schedule here, but that is not the price in Des Moines. I have Benezet Williams' price in Des Moines.

Q. What was his price on 4 inch cast iron?

A. What year?

Q. The year the case was tried, in 1910?

A. The average cost per ton for a good many years back, I don't remember how many, the average cost per ton was \$30.17 in 1910.

Q. It is a good deal less now?

A. Yes.

Q. It was a good deal less the 1st of January this year?

A. I think so.

Q. How much less?

A. I don't know what it was.

Q. It was four or five dollars less than that?

A. It was probably \$27.

Q. Even less than that?

A. I am not sure, it might have been \$26.

Q. The average for how many years, you say?

A. Apparently from 1871.

Q. To 1910?

A. It appears from this table to be the period covered.

Q. \$30?

A. \$30.77.

Q. You have a memorandum there you used in February this year to give the quotations on 4 inch cast iron pipe?

A. Yes.

Q. Look at it and see what it was at that time?

A. In February 1911?

Q. Yes.

2895 A. The quotation for 4 inch water pipe was in the neighborhood of \$25.50, making it \$26.50 for gas pipe.

Q. Is that for Des Moines or Chicago?

A. That is Chicago.

Q. Twenty-five what?

A. \$25.50 in Chicago for water pipe.

Q. What would be the difference, if any, between Chicago prices and Des Moines prices?

A. I don't remember what the difference would be.

Q. There isn't any?

A. I think there is some, yes.

Q. You figured it out to find out?

A. I did but haven't it here.

Q. Do you remember the price you put on this kind of pipe at Beatrice, Nebraska?

A. I don't remember it now.

Q. You didn't make any differences between the Chicago price and Beatrice or Omaha price?

A. I don't remember.

Q. There isn't any substantial difference?

A. I believe there is—

Q. Isn't that class of pipe quoted exactly the same in Omaha as in Chicago?

A. I don't believe it.

Q. Anyhow, it was \$25.50 in February?

A. Yes.

Q. It was less than that even the 1st of January, wasn't it?

A. Yes, it was \$25 the first week in January. There was no pipe moving at that time of the year; you generally find the prices down in January.

2896 Q. Now, 6 inch pipe?

A. What do you want on that, the price per ton?

Q. Yes.

A. \$30.

Q. What was that average per year?

A. That is my judgment as to what I would have to pay for pipe if I would come down to put in this system at that time.

Q. And pay for it here in Des Moines?

A. Yes.

Q. What was that pipe on January 1st?

A. I can't say from this chart, because it jumps from 4 inch to 16 inch and larger.

Q. What was it here in February?

A. I haven't it on this chart. I have what I used. I took 6 inch and larger and at \$1 less than 4 inch pipe throughout.

Q. You have the 4 inch at what?

A. \$31 f. o. b. Des Moines.

Q. I am talking about Beatrice now?

A. I don't know anything — Beatrice now.

Q. You figured at Des Moines even \$30.

A. \$31 for the 4 inch and \$30 for the 6 inch or larger f. o. b. Des Moines all the cast iron pipe in Des Moines.

Q. \$30?

A. \$30 6 in and larger.

Q. You did that all through your distribution system?

A. Yes, sir.

Q. Now, another thing—you were to furnish me with figures showing the items of expenditures that you stated would have to be made in the next few years here in your total of a million dollars, in the next seven years.

2897 A. I told you I had made some rough figures which run over a million dollars. As I remember it you wanted me to make an itemized statement that involved the preparation of at least some rough sketches and a large amount of detail work which I have not been able to do.

Q. Another thing I asked you about was the memoranda and figures from which the table on pages 10 and 12 of your report was made; you say that was taken from Exhibit 8?

A. Yes.

Q. Another thing was the memoranda which you said you had at the Chicago office furnished by the Des Moines Gas Company, from which the totals on page 1 and 11 of your report were made?

A. What do you mean by page one—organization and legal expenses?

Q. Yes.

A. Certainly not. Page 11 is one of the 3 pages we have been talking about as showing the composite age. All of the data on page 11 is one of the 3 pages I used in Exhibit 8.

Q. Now the figures shown on page 1 is the memoranda that was furnished you by the company covering that?

A. Do you mean what is called page 1 of my report?

Q. Yes.

A. That shows the organization and legal expenses.

Q. Were those figures furnished you?

A. No, sir.

Q. You made those up without any memoranda from the company?

A. Yes.

Q. Now, Mr. Lea, another matter I wanted you to figure out for me—I asked you to furnish to the Master and counsel the figures in separate items, showing the amount that you have allowed in your report in values added to the property, in value, over and
2898 above the reproduction cost of the material itself and labor.

A. I furnished that some time ago. I think I still have it. It was discussed here one day, I remember.

Q. I don't remember seeing it myself.

A. (Witness produces figures). This is it here, showing the total in dollars for engineering, etc., taxes during construction, and loss of interest during construction. You will remember we had that; we were making some figures here.

Q. You can give me from that what I want now. First give me

the amount that you have allowed and as shown by your report, covering contingencies.

A. I have the contingencies here only as a part of the 15 per cent covering engineering, supervision, contingencies and omissions.

Q. How much is that?

A. \$232,481.

Q. Now, that covers contingencies, engineering and supervision—

The MASTER: Is that the present value?

A. That is the amount which appears in the reproduction value.

The MASTER: Not the amount which appears in the present value?

A. No.

Q. It gets into the present value all right?

A. Sure it does.

Q. It covers contingencies, engineering, supervision and omissions?

A. Yes—now wait a minute—I gave you \$232,481.

Q. Yes; that is for the distribution system alone?

A. The total including \$5,000 on real estate, \$12,858 for buildings; \$63,072 for works equipment; and \$232,481, engineering, etc., is \$313,411; that is the total amount included under my 15 per cent addition.

Q. Now a little more than half of that represents omissions?

2899 A. Yes, 8 per cent.

Q. It would be divided in the ratio of 8 to 7?

A. It would be 8/15—no, before you get that you would have to deduct your \$5,000 which goes in on real estate.

Q. What was that?

A. That was for sinking test holes and engineering.

Q. Anyhow, you make these items \$313,411?

A. Yes.

Q. Now, then take legal and organization expenses?

A. That is shown in the report.

Q. Just give me the amount?

A. You want the total allowance for organization and legal expenses?

Q. As you have it.

A. That is shown in the report, of course, page 1 shows the total organization and legal expenses \$68,023.

Q. Is that the total that enters into your final figures?

A. Yes, \$68,023 in that sum is included \$1,429 for taxes during construction, and \$4,594 for loss of interest during construction.

Q. So that there are in addition to legal expenses and organization these two items of taxes and interest?

A. Yes, shown on page 1 there. I think if you want to get the—straight, you had better take the net construction.

Q. No, this is what I want. I want it for the purpose of comparison with these other reports. What rate of interest did you figure during the construction that is included in this?

A. I figured at the rate of $2\frac{1}{4}$ per cent per year, where the material was subject to taxation for the full year.

Q. What rate of interest I said?

A. 6 per cent.

Q. You figured it for the full year?

2900 A. Where the money was in use the full year. Where for instance a thousand dollars was put in during the year, that would be figured at six per cent for one half year.

Q. Now take the four items you have mentioned, legal expense and organization, taxes and interest during construction, etc., and the total is what?

A. \$68,023.

The MASTER: Is that the amount of interest on the organization expenses or the whole interest you allow?

A. That is the interest on organization expenses, for that purpose up to the time when gas is beginning to be manufactured.

Q. The same thing is true of the taxes?

A. Yes, sir.

Q. In other words, those four items, legal expenses and organization, taxes and interest are all involved in one item?

A. The legal organization is ahead of my report, to which I have added the other items.

Q. Exactly. You have taken what you thought, without respect to any figures furnished to you by the company or anybody else, what you thought would be necessary for legal charges or expenditures and organization expenditures, and what you thought ought to be on hand at the beginning of the construction?

A. Yes.

Q. And then upon that sum figured out in your way, without any basis being furnished by the company, you allowed interest during a part of the time on some of this money that was laid aside for legal organization, and also the tax on some of it.

A. That is correct.

Q. But not all of it?

A. The tax on all of it subject to taxation. For instance
2901 if you spend a thousand dollars this year on your organization and legal expenses, that thousand dollars must be added to your capital and the tax must at the same time be paid on that; they tax the property plus that, but in my report I had to handle it separately.

Q. You simply increased your organization and legal expenses by the amount that you allow for interest and taxes and the total makes \$68,023.

A. That is right.

Q. And the total taxes covered by your report find their way into the valuation of the property?

A. The total amount of tax, including \$1,429. added to organization and legal expenses.

Q. I want you to leave that out.

A. The total amount included in my reproduction values for the item of tax during construction is \$72,759, from which for your pur-

pose you deduct \$1,429. I have already given you under the head of organization and legal expense, and you have \$71,330. left.

Q. The total amount of interest that you have figured that finally found its way into the value of the property?

A. The total amount of loss of interest during construction entering into my reproduction totals is \$196,529. from which you deduct for your purpose \$4,594. previously explained as belonging under organization and legal expense, and you have \$191,935.

Q. Now, the total amount of going value you have got in.

A. \$583,000. That appears in both reproduction and present value.

Q. Now the amount of capital?

A. Working capital, the net construction equivalent of working capital I have \$142,000. but the actual amount as shown in my report when segregated as to the working capital, would have to include from the figures previously given to you \$2,412. for taxes during construction and \$6,484. for loss of interest during construction, properly chargeable to working capital.

Q. That would make in round numbers \$150,000?

A. Whatever my report shows.

Q. But you have it there at \$142,000.

A. That is without taxes or interest.

Q. Now the total amount that you have allowed for mains under pavements that finally finds its way into your total present value?

A. For the item of paving alone over mains and over services, I have included in my reproduction cost a total of \$49,584. for engineering, casualty liability, supervision, omissions and contingencies, making up the 15 per cent previously explained, and \$10,279. making up the total taxes during construction chargeable to paving, and \$27,662. for loss of interest during construction. The total of the 15 per cent representing engineering, etc., and all the tax during construction, and all the loss of interest during construction which I have added in my reproduction cost to my net construction cost of tearing up and replacing pavement over mains and services is \$87,525.

Q. But that is not the total I want.

A. That is the total for that head.

Q. I want the total amount that enters into your report under the head of paving as shown.

A. To this \$87,525. you would have to add the net construction cost of paving, the net construction cost of paving over mains \$277,574. of paving over house services \$48,276. of paving lamp services, \$4,708. or a total net construction cost covered by the item of paving of \$330,558. Adding to this latter amount the total for engineering, etc., and taxes and loss of interest during construction, the figure \$87,525. previously given, you have the total amount \$418,083. appearing in my total reproduction cost under the head of paving.

Q. Well, I don't think you are giving that to me just as I wanted it. This figure \$418,000 would be duplicating some of those other items?

A. \$418,000 is the total which I understood you to ask for.

Q. I have already got the total taxes.

A. The net construction is \$330,558.

Q. The engineering as I understand it, is all up in this other item?

A. Yes.

Q. That item \$313,411. covered all the engineering?

A. Yes, whatever place you may find it.

The MASTER: I figured on \$277,000; I think it was about 61.1 per cent per lineal foot for the pavement on an average.

A. The total included in the reproduction covering all the overhead the final figure appearing in the reproduction cost for paving is \$418,083. You reduce that to the foot basis and I don't know where that would be.

Q. Where did you get your unit price for paving, say take asphalt, in Des Moines?

A. I got some figures here and compared them with figures in other cities.

Q. What was the figure you got here?

A. Street paving, asphalt, on 5 inches concrete, the price I got here ranged from \$2 to \$2.50 per square yard.

Q. That lowest price you have there is about 30 per cent higher than it is being done for right now?

A. Not as I understand it.

Q. Who did you get those figures from?

2904 A. There are four figures here from three firms.

Q. Who are the firms?

A. J. C. Mardis—

Q. He is not in the paving business.

A. I don't know his business, except that he is a contractor and he gives a price of \$2.25 per square yard, all on large work.

Q. Mardis is a builder?

A. All right.

Q. Who else?

A. W. H. Brereton. He gives it at \$2. to \$2.50 per square yard. Charles Weitz & Sons, at \$2.10 per square yard.

Q. They are not in the paving business?

A. I don't know.

Q. Neither is Brereton?

A. I don't know.

Q. You knew who was paving here?

A. I did not.

Q. You didn't make any inquiry of people that were in the business?

A. I supposed those people were. All I wanted to know was whether those prices were used here.

Q. In other words, you didn't care who gave you the prices; you would rely on it no matter whether they knew what they were talking about or not?

A. Is that what you gather from my remark? That is not what I said.

Q. What is your total Mr. Lea, of these items you just so kindly gave me without any evidence?

A. I don't know what you want now.

Q. I started with the \$311,411.

A. That is the total for engineering, etc.

2905 Q. Give me the total now of all those figures, engineering, legal organization—if you will just follow me and put the items down—contingencies, engineering and supervision and omissions \$313,411.

A. Yes.

Q. Taxes and interest \$68,023.

A. Yes; legal organization including taxes and interest.

Q. Taxes \$71,330.

A. Yes.

Q. Interest during construction \$191,935.

A. Yes.

Q. Going value \$583,000.

A. Yes.

Q. Working capital, less taxes and interest, \$142,000.

A. Yes.

Q. Paving \$303,558. Now add those together.

A. (Witness computes). The total of these items is \$1,700,257

Q. Now does that amount enter into the reproduction cost before the depreciation is taken off?

A. Yes, the depreciation is not taken out until the total reproduction cost is arrived at.

Q. Then the total reproduction cost as shown here on the first page of your report Exhibit 20, is what?

A. \$3,641,714.

Q. Then if we reduce that amount by the \$1,700,257 we get your reproduction cost of the property?

A. You certainly do not.

Q. What do you get?

A. You can only get my reproduction cost of the property by taking the total \$3,641,714.

Q. I meant the net construction cost?

2906 A. You would have the net construction cost of the physical equipment alone, including real estate.

Q. That is what I am trying to get at, and that result worked out would be \$1,941,457.

A. Yes, sir; that is right.

Q. Now, Mr. Lea, just a word or two and then I am through. You stated in your examination before, and quite emphatically too, that no engineer would undertake to place a value on property of this kind without considering omissions and allowing a certain per cent for omissions; you still adhere to that, do you?

A. Yes.

Q. You did not do it at Beatrice?

A. At Beatrice the case was radically different. At Beatrice I was not expected to render a detailed appraisalment of the property except on such matters as were provided for in the agreement. Both

parties had agreed as to a very great many facts in the case, and they presented them to me to pass on.

Q. You made up for them what you claim a replacement value of the property?

A. Yes.

Q. And you say this: The replacement value of all the foregoing, with the exception of the real estate and the lease, must be added 15 per cent to cover the following items: engineering 5 per cent; interest during construction 5 per cent; legal and organization expense 3 per cent; casualty liability 2 per cent; total 15 per cent. You used the same figure exactly, 15 per cent, but you have nothing in it for omissions?

A. Yes.

Q. Could you take your report and give us the details with respect to prices on concrete and paving and excavation?

A. Yes.

Q. Your base figures?

A. Yes.

Q. Where did you get them?

A. I didn't get them all in one place; I have been over all parts of the United States and have been gathering this stuff for fifteen years.

Q. Whatever figures you got, whatever valuation you placed upon local prices, was due to either a party furnishing them to you or your approval of them in comparing them with what you knew in a general way over the country?

A. It was the latter in every case.

Q. So that your figures are made up in exactly the same way that engineers usually get at the value of a given piece of work in a locality?

A. Yes, sir.

Q. They are not based in any case upon exact prices for the locality where the property is?

A. That would be physically impossible, as you can see, by referring to the local contractors here; they do not agree on anything themselves as to the price of lumber etc. I got as to the details that enter into the buildings figures from three leading contractors, and they do not agree at all.

Q. So that what you have to do and what you did do, you took such prices as you could get?

A. I didn't take the highest nor the lowest.

Q. You took such prices as you could get locally and then you compared them with similar work in other places and similar prices that you had verified, and if the local prices did not appeal to your judgment, if you thought they were too low, you did not accept them; if you thought they were too high, you did not accept them, and from them and all this other information you have, worked out what you thought would be a fair figure for the particular job?

A. That is true, if you put this addition to it; if a local price appeared too low to me, I wanted to know why; if there could be no

satisfactory reason given to me, I assumed the price was abnormal and I didn't use it.

Q. If it seemed too low you concluded it was not at all the general range of prices for that work but was a price which was probably affected by some local condition temporarily?

A. That applies also where the price is too high. I did not want to base a report on an abnormal condition on either side.

Q. Then in getting your unit values, if I understand you, you were obliged to rely upon quotations and statements of prices, locally and at other places, and such figures as were furnished to you, if any were furnished by the local company, and in that general way you fixed your unit prices?

A. I wouldn't want to leave it on as flimsy a basis as you have it. My figures are very largely from actual contracts, actual construction and actual quotations made.

Q. I am afraid we are getting into deep water there, because actual contracts here you actually ignored?

A. Certainly.

Q. If you had taken the actual contracts here some of your prices would have been a good deal different?

A. They would.

Q. If you had gone to the books of the company you would find actual contracts at a very recent date that did not compare 2909 with your figures?

A. If that is true, that is caused by an abnormal condition existing here.

Q. No, it was not abnormal either. It is safe to say is it not, in getting at these unit prices you were compelled to rely largely on quotations and on prices that you in the past had verified as being about reasonable for that class of work?

A. I was not compelled—I presume the company would have given me access to the books, but I did not want to know what the company said it was worth.

Q. Aside from that then, you take, as I understand you, you take such quotations as you can get, and such information as you got from Alvord's chart or schedule, and then use your own judgment finally to strike what you thought was a fair figure?

A. Alvord's chart played a very insignificant part in my estimates. I obtained that chart after I had arrived at my unit cost of pipe.

Q. It happened to agree?

A. It happened to show that my judgment had been all right as to the range of prices in the past.

Q. Of course, it wouldn't be fair to suggest even that finally your figures happened to coincide with Alvord's and that therefore you took them from Alvord's?

A. They do not coincide with Alvord's at all.

Q. Are they higher or lower?

A. I think they are higher; they should be.

Q. Just one thing further and I think I am through. You stated did you not that you made a report over at Taylorville?

A. I believe I said I made a report, a verbal report; I did make

a report to the company; I did make a written report to the
2910 Company.

Q. Have you got it here with you?

A. I am not sure. No I got to Taylorville and had to make a hurried report there, and my report was just a pencil memoranda which I dated, addressed, filled out and signed.

Q. You better look that up a little more.

A. I am very sure about it; I remember it distinctly, that is all there was in the way of a report at Taylorville.

Q. There was no trial there, as you said?

A. I didn't mean a trial before the court; I think I said before the board of arbitration.

Q. Were you present?

A. I certainly was present.

Q. For how long?

A. I think two days.

Redirect examination by Mr. GUERNSEY:

Q. In the first place, Mr. Marks complained more or less because he was furnished a blue print of these drawings instead of a white print. I would like to have you state whether the company furnished to you blue prints of these drawings or white prints?

A. No, they furnished blue prints.

Mr. BYERS: In connection with this cross-examination the defendants offer in evidence the Defendants' Exhibit No. 6.

Objected to on part of complainant as irrelevant and immaterial so far as this case is concerned.

Mr. GUERNSEY: Now one other thing. Will you at your convenience make up and file with the Master a memorandum
2911 showing as to each size of pipe the factors going into your unit price, and the unit price, including the cost per ton of pipe, which you took, f. o. b. Des Moines, the weight per foot, and then each item which you used to make up your unit price, and the unit prices?

A. Yes, sir.

Mr. BYERS: Of course if that is to be offered, we would want to examine the witness with reference to it.

Mr. GUERNSEY: I simply thought we would save a little time in doing this.

The WITNESS: I can make it now if you want it.

Mr. BYERS: The defendants at the close of the cross-examination of the witness Lea, with respect to his report which had been marked in this Complainant's Exhibit 20, in addition to the objections heretofore urged to the report, now object to it because it fully appears from the testimony of the witness himself that it is a mere memoranda of conclusions, arrived at by the witness by the use of other and different memoranda, quotations and tables of figures and prices, which has not been identified and which are not offered as evidence in this case. We further object to the exhibit for the

reason that it is largely hearsay and purports to give a record of operations of the complainant company's business, which is mere hearsay, it has not been identified by any witness, is not the best evidence and is incompetent and immaterial. And we move to strike the report from the record for all the above reasons.

Excused.

2912 W. F. DOUTHIRT, continuing his direct examination, examined by Mr. Byers, testified:

Q. You stated yesterday, Mr. Douthirt, as one reason for the allowance of the \$10,000 so-called salary, which goes into the treasury of the United Gas Improvement Company, one reason for which you justified it, was because that corporation had performed services for the Des Moines Company it had never been compensated for; do you know just what compensation the United Gas Improvement Company has had out of the Des Moines business? I will hand you the minute books of the stockholders' meetings and let me see if you can tell me from them what dividends the United Gas Improvement Company has taken out of this business before 1906?

Same objection.

A. Well, without looking at the books, I would say that dividends are a return on capital and not a compensation for services.

Q. I know it is a return on capital. I want to have some idea what you considered a fair return on capital, and then what you think how much ought to be allowed?

Same objection.

A. The matter of a fair return on capital is probably a question of law—

The MASTER: Answer the question.

Q. I want to know what dividends the U. G. I. got from the Capital City Gas Light Company.

Same objection.

A. From the investment in stock of the Capital City Gas Light Company?

Q. Yes; I don't care how they got it.

Same objection.

A. How far back do you want me to go.

2913 Q. Well back to 1895 or '96, along there?

Same objection.

A. (Witness examines books.) I think I have found upon the minutes of the Capital City Gas Light Company the matter to which you refer. It is in volume 2 of the stockholders' and directors' minutes of the Capital City Gas Light Company, commencing about the middle of page 17 and is as follows:

Q. Is that the only thing you find where dividends have been declared?

Same objection.

A. The only place in the years 1895 and 1896.

Q. Well, I did not limit you to that; any time from that time on down to 1906?

Same objection.

A. I am not prepared to say that is the only place, except it is the only place down to 1897.

Q. Of course, I intended to cover all from 1895 down; but let us have that.

Same objection.

A. "Whereupon A. B. Cummins offered the following preamble and resolution:

Whereas, prior to this meeting the authorized capital stock of the Capital City Gas Light Company was Three Thousand (3,000) shares of One Hundred Dollars (\$100.) each aggregating Three Hundred Thousand Dollars (\$300,000.), and

Whereas the capital stock has been increased by amendment duly passed and adopted to six thousand (6,000) shares of One Hundred Dollars (\$100.) each, aggregating Six Hundred Thousand Dollars (\$600,000.) and

Whereas, the property of this company, real and personal, including its rights, franchises, privileges, contracts, immunities, is of the fair value of Six Hundred Thousand Dollars (\$600,000.) after deducting its indebtedness, and

Whereas, the present stockholders are entitled to the said increase in capital stock;

Now, Therefore, be it resolved and the board of directors is authorized and directed to make a stock dividend of the said increased capital stock, to-wit: of three thousand (3,000) 2914 shares and to cause to be issued and delivered to each of the stockholders according to his holdings, as appears from the books of the company, his ratable proportion of the said increase of capital stock, which capital stock shall be issued fully paid up and non-assessable.

Whereupon A. B. Cummins moved the adoption of this resolution, which motion was duly seconded by W. B. Keffer and after being duly considered by the stockholders of the corporation was adopted by the affirmative vote of all the stockholders. Whereupon the presiding officer declared the resolution to have been unanimously passed and adopted."

Q. At that point, who owned the stock of the Capital City Gas Light Company at that time?

Same objection.

A. I can only refer to the record. While I was not in the employ of the United Gas Improvement Company at that time, I suppose they did.

Q. You know that; there is no supposition about it?

Same objection.

A. I am morally certain, yes.

Q. Mr. Cummins, he was simply the attorney.

Same objection.

A. Yes.

Q. That record means that at the time the United Gas Improvement Company received a dividend in amount and in value of the sum of whatever that three hundred thousand dollars in stock was worth?

Same objection.

A. No, I wouldn't say that.

Q. What would you say?

Same objection.

A. If the United Gas Improvement Company owned all the stock before the increase and then got all of the increase, I wouldn't say they had any more in value than they had before; simply
2915 the value was represented by more shares.

Q. How would it be when they come to figure returns and when they sell the property?

Same objection.

A. When they come to figure the returns, I don't think it would make any difference at all, because as I understand the matter, a return is figured on the present worth of the property and assets, irrespective of whether it is capitalized for two or three times that present worth, or whether it is capitalized for only a fraction of that present worth.

Q. Was this capitalized for more than its present worth?

Same objection.

A. To what do you refer?

Q. This property of the Gas Light Company at that time, when this increase of capital was voted.

Same objection.

A. Why, this was in 1896. I have no knowledge of the worth of the then present worth of the property and assets of the Capital City Gas Light Company, further than what appears upon the record.

Q. Would there be any difference between what they did at that time, except in the character of the property, between what was done there and the distribution of the \$300,000 surplus, if they had it laying in the bank in dividends?

Same objection.

A. Decidedly.

Q. What would be the difference?

Same objection.

A. In the case of a distribution of a surplus lying in the bank, the stockholders would get cash and the assets of the company would be reduced by that amount.

2916 Q. How about this stock; did that affect the company in any way?

Same objection.

A. That did not affect the company, did not affect the assets of the company; it neither increased nor reduced the assets of the company. It simply resulted—

Q. Did it affect the liabilities in any way?

Same objection.

A. No; in a bookkeeping sense it doubled the liability on account of capital stock, but as a capital stock liability is carried in bookkeeping it is a liability which does not have to be paid.

Q. What was that stock worth in your judgment at that time?

Same objection.

A. I have no judgment on the subject.

Q. What was it finally worth?

Same objection.

A. I have no judgment.

Q. What did they finally get for it?

Same objection.

A. For the \$300,000 then issued, or for the total \$600,000 that was outstanding after the issue?

Q. Well, either way.

Same objection.

A. Well, specify please.

Q. Well, take it first the \$600,000.

Same objection.

A. According to my best knowledge that stock was held until March 1, 1906, when the Des Moines Gas Company was organized, and then the Des Moines Gas Company paid out certain securities to the Capital City Gas Light Company in payment for its property and assets.

2917 Those securities were ultimately distributed to the owners of the \$600,000 of stock of the Capital City Gas Light Company.

Q. How much did they get for the \$600,000 in stock?

Same objection.

A. In what?

Q. In anything—money, property or bonds or whatever it was?

Same objection.

A. I will give these amounts in just as little time as possible. I want to take them from the record.

Q. You have some recollection about it without the record haven't you—I will not quarrel about that—if you prefer to take it from the record you may do so.

Same objection.

A. It all appears upon the record and it would seem to me the best way to answer the question would be to read part of the record.

Q. I want to get the amount in the concrete form; the amount now that the books show. They ought to show what was paid either in money or stock or bonds or security of the Capital City Gas Light Company for the property that we have been talking about and which is covered by their stock of \$600,000?

Same objection.

A. By the records of the Capital City Gas Light Company stockholders' and directors' minutes, volume 2, and especially by the minutes of the directors' meeting of February 28, 1906, which commenced on page 123, it appears that the Capital City Gas Light Company received for the sale of its property and assets to the Des Moines Gas Company, subject to \$400,000 bonds then outstanding, the following securities of the Des Moines Gas Company: \$2,249,-

000. face value stock; \$800,000 face value preferred stock contracts; \$240,000 face value bonds of the Des Moines Gas Company. It further appears by the minutes of the same meeting that the Capital City Gas Light Company used \$120,000 face value of the \$240,000 face value of bonds of the Des Moines Gas Company in settling the indebtedness of the Capital City Gas Light Company, other than its \$400,000. of mortgage bonds then outstanding, which indebtedness according to the records amounted to \$105,526.49. So that after settling this indebtedness the Capital City Gas Light Company appears to have had on hand as the net proceeds of the sale of its property the following securities of the Des Moines Gas Company: \$2,249,000. stock; \$800,000. preferred stock contracts; \$120,000. bonds.

Q. Of course I did not ask you to confuse that statement with that debt. I simply wanted the amount of the property bought. Of course, I can figure that out afterwards. The debt, as I understand it, was the debt of the Capital City Gas Light Company?

Same objection.

A. The \$105,526.49 was the entire indebtedness of the Capital City Gas Light Company other than its \$400,000. outstanding mortgage bonds; a part of the proceeds of the sale of its property it applied to the liquidation of that debt; and the balance of the proceeds remaining on hand were distributed to the stockholders.

Q. That did not reduce the amount it received?

Same objection.

A. But did reduce the amount finally distributed to the stockholders.

Q. Well, the total amount of these items that you have just given there is \$3,289,000.

Same objection.

A. The total amount of the three items which were received as consideration for the property was \$3,289,000.

2917b Q. Now, then, that was the amount in securities and stocks that the Capital City Gas Light Company received from the Des Moines Gas Company in March or February 1906?

Same objection.

A. Yes, and——

Q. Just a minute—out of that they paid a debt of \$105,000?

Same objection.

A. Yes, \$105,526.49.

Q. And that was a debt to the U. G. I.?

Same objection.

A. Yes.

Q. And they paid that with \$120,000 of these bonds which were subject only to \$400,000. issued ahead of it?

Same objection.

A. Yes.

Q. And the U. G. I. took \$120,000. to pay its debt of \$105,000.?

Same objection.

A. Yes.

Q. That left \$3,169,000?

Same objection.

A. Yes, that is right.

Q. At that time the stock of the Des Moines Gas Company was all owned by the U. G. I. wasn't it?

Same objection.

A. Why, no.

Q. Who did own it?

Same objection.

A. It was owned at that time by the Capital City Gas Light Company.

G. They didn't own the stock in the Des Moines Gas Company?

Same objection.

2918 A. Yes, they received it from the Des Moines Gas Company.

Q. After the transfer, but who owned it before?

Same objection.

A. Nobody owned it before.

Q. There was none issued—it was issued and transferred at once, was it?

Same objection.

A. Yes.

Q. Nobody owned it before?

Same objection.

A. No.

Q. And the U. C. I. owned it immediately upon its issue?

Same objection.

A. No, the Capital City Gas Light Company.

Q. I know, but the U. G. I. owned the stock back of the whole business?

Same objection.

A. Yes.

Q. And this \$3,169,000. of securities that were turned over to the so-called Capital City Gas Light Company was distributed in the form of dividends, stock dividends to the U. G. I. Company?

Same objection.

A. I think the record is the best evidence of that.

Q. Isn't that so?

Same objection.

A. It appears by the record as follows: Resolved that upon receipt by this company of the shares of stock, bonds and preferred stock contracts to be delivered in payment for the property, real, personal and mixed, and the franchises of this company, the same, except as is required to pay and discharge the debts of the 2919 company, as set forth in the resolution next preceding, be distributed pro rata to or upon the order of the stockholders of the company, as a dividend in liquidation, such dividend being this day hereby declared and ordered paid as aforesaid.

Q. You just told the Master, Mr. Douthirt, you were at that time, as I understand you, a member of the board of directors of this corporation?

Same objection.

A. Which corporation?

Q. The Des Moines Gas Company?

Same objection.

A. No.

Q. You were secretary of the U. G. I.?

Same objection.

A. Yes.

Q. Now you tell the Master, will you, Mr. Douthirt, at that time when you say the record shows that the resolution passed directing the distribution, who it was finally distributed to and who got it?

Same objection.

A. The United Gas Improvement Company.

Q. Now, how much did they get?

Same objection.

A. They got \$2,249,000. face value stock of the Des Moines Gas Company; \$800,000. face value preferred stock contracts of the company; \$120,000. face value of bonds in the same company, making the total which you have mentioned of \$3,169,000. securities of all character.

Q. And it received also a \$15,000 margin on its debt of \$105,000?

Same objection.

2920 A. Well, if you want to put it that way.

Q. That is right, isn't it?

Same objection.

A. No, I wouldn't say so.

Q. Wasn't that \$120,000, it got gilt edge security?

Same objection.

A. Will you define gilt edge?

Q. Well, worth a hundred cents on the dollar?

Same objection.

A. No, I don't think so.

Q. Why not, why wasn't it?

Same objection.

A. Well, I can only give you my personal judgment; I wouldn't pay that for it.

Q. What property was behind it—security—what do you say was the value of the property behind as security?

Same objection.

A. I express no opinion as to that; I entertain no opinion as to that.

Q. Why?

Same objection.

A. Simply because I don't.

Q. You know what property the Capital City Gas Light Company had?

Same objection.

A. Yes.

Q. Do you mean to say that the property of the Capital City Gas Light Company was not sufficient value at the time that transfer was made to make a \$240,000. issue of gold bonds, subject only to \$400,000. worth par?

Same objection.

A. It would depend on——

2921 Q. No, just answer that question.

Same objection.

A. Five per cent bonds—no.

Q. All right. Now this \$3,169,000. of securities that the Capital City Gas Light Company received from the Des Moines Gas Company included in it 2,249 shares of stock that were issued over and above the preferred stock and the \$240,000. in gold bonds?

Same objection.

A. You got your figures wrong: 22,490 shares.

Q. All right; so that whatever they may be said to have been

worth this bunch of securities, that is what the U. G. I. finally got out of its investment in the Capital City Gas Light Company up to March 1, 1906, isn't that so?

Same objection.

A. On February 28, 1906, the U. G. I. investment in the Capital City Gas Light Company was represented by \$600,000. Capital City Gas Light Company stock. On March 1, the next day, that same investment was represented by these other securities; there was no change in the investment or property. Simply a change in the securities which represented whatever it was.

Q. Why was the change made, why was the book value of this property, counting the stock as having some book value, increased from \$600,000 to over \$3,000,000. over night, what was the purpose of doing that?

Same objection.

A. The Capital City Gas Light Company was capitalized as follows: \$600,000. worth of stock; \$400,000. worth of bonds; all were issued and outstanding. You will note there is a ratio of two-thirds which is the limit of indebtedness permitted by the 2922 laws of Iowa. There was no way in which the Capital City Gas Light Company could issue any bonds to raise money for additional improvements. The City of Des Moines was growing rapidly, and large sums were required for additions, betterments and extensions, and I may say in passing, one of the most important problems in the management of these public utilities in a rapidly growing city like yours, is the financing of their natural requirements for betterments and extensions and to keep pace with the growth of the town and reasonably meet the public demand for service. This old corporation, the Capital City Gas Light Company, was in a situation where it could not issue bonds to raise money for the purposes I have mentioned. Therefore, this reorganization was planned, the principal reason being, to provide in the course of the reorganization a new issue of bonds which would take care of the requirements of the future for some reasonable length of time. So this authorized issue of \$1,500,000. was provided, of which \$400,000. were set apart to retire the then existing bonds of the Capital City Gas Light Company which were not due and could not be paid until about two years or more later. \$285,000. of bonds were issued to take care of certain construction, which is in part mentioned in the minutes, which had therefore been made—the million foot holder had been erected by the Capital City Gas Light Company, and had no means of paying for it, so the United Gas Improvement Company had advanced the money and carried it for the Capital City Gas Light Company. The Valley Junction property had been built, or certain real estate had been acquired, by the Capital City Gas Light Company, and that had to be carried by the United Gas Improvement Company. Other apparatus which I cannot describe in detail had been installed and were carried by the United 2923 Gas Improvement Company, because the Capital City Gas Light Company had no means of paying for it. All of these

things were paid for out of this \$285,000. of bonds which was the only amount of bonds issued by the Des Moines Gas Company at the time of its organization; that with the \$400,000. bonds set aside to take care of the outstanding bonds of the Capital City Gas Light Company, makes \$685,000. Those \$400,000. bonds have since matured and have been met out of the new bonds reserved for that purpose. The authorized issue of bonds of the Des Moines Gas Company was \$1,500,000. of which \$685,000. was issued or appropriated at the time of the organization, leaving a balance of \$185,000. available for future betterments under the terms of the mortgage; and the principal purpose in planning this whole reorganization was to get the matter in shape where there would be securities of a salable character available for issue to take care of the requirements of the property, for improvement and betterments, to meet the demands of the public service.

Q. Why didn't the U. G. I. do that by increasing the stock and paying for its stock?

Same objection.

A: Because the U. G. I. like any other concern, has to get, in some way, from the companies in which it is interested a security which it can market and sell. It cannot and no other concern can go on indefinitely advancing money to companies in which it is interested and receive from those companies only an unmarketable security. It must receive at least a substantial portion of the advance which it makes in the security which is marketable, out of which it can recoup itself for the advances.

Q. Was there anything added to the value of that property in that over-night transaction?

Same objection.

A. Not a dollar.

Q. It was worth no more afterwards than before?

Same objection.

A. No, except it was probably put in shape where its security issues were such that it could be more readily provided for the future; whatever that was worth, added to the value.

Q. That is to say, you had put \$22,490 shares of stock which did not represent a dollar in money, into circulation somewhere?

Same objection.

A. Well, I can't say that; we sometimes call that watering. I can't say that the securities in the aggregate, outstanding on the morning of March 1, 1906, were worth any more in the aggregate than the securities outstanding on February 28, 1906, except to this extent, that they were then in a condition where part of them could be realized upon, and further than that a provision was made in the authorized mortgage for the issue of the additional securities in the future, which would probably be marketable, to obtain the moneys required for betterments. What over that change may have added to the property was added; other than that there was none.

Q. In other words, by that transaction you were able to increase the obligations of the concern without furnishing any further property security; that's right, isn't it?

Same objection.

A. Do you include capital stock as an obligation?

Q. Everything.

Same objection.

A. Then I will answer your question yes.

2925 The MASTER: I have my doubts about it being an obligation. The Supreme Court has decided it both ways.

Q. If I understand you Mr. Douthirt, coming down to this moment, the United Gas Improvement Company received in exchange for its property, whatever it was, you say it was the night before this transfer, what represented \$600,000.

Same objection.

A. I say it was represented by \$600,000 worth of stock and entertain no opinion as to its value.

Q. The United Gas Improvement Company received for that property in addition to whatever it got out of the preferred stock and the bonds that were issued, the 22,490 shares of stock in the Des Moines Gas Company, that is right, isn't it?

Same objection.

A. That assumes that it got something out of the preferred stock contracts and the bonds.

Q. Well, did it?

Same objection.

A. You mean were they sold at that time?

Q. Did the United Gas Improvement Company get them?

Same objection.

A. It got them.

Q. Now, let me put it in another way. In addition to whatever it received of the \$800,000 preferred stock contracts, and whatever, if anything, it received out of this \$240,000 gold bonds, it received 22,490 shares of stock of the Des Moines Gas Company?

Same objection.

A. I think there is a little confusion in the language of that question; I don't mean to say it is intentional, but I think there is.

2926 Q. I don't catch it just now myself. What I mean is the United Gas Improvement Company got these 22,490 shares of stock in addition to the other items, whatever they were?

Same objection.

A. Yes, it got 22,490 shares of stock in addition to \$800,000 of preferred stock contracts and \$120,000 bonds.

Q. And it still has that stock?

Same objection.

A. Yes.

Q. Now, what is the Capital City Gas Light Company's stock worth, what was it worth on the day before this transfer to the Des Moines Gas Company?

Same objection.

A. I entertain no opinion.

Q. Was it worth anything?

Same objection.

A. I have no doubt it was worth something.

Q. Give us your judgment as to what it was worth?

Same objection.

A. I have no judgment.

Q. What was its book value?

Same objection.

A. I have no knowledge.

Q. Haven't you looked that up?

Same objection.

A. No. You mean its book value on the books of the Capital City Gas Light Company?

Q. Yes, sir.

Same objection.

A. No, I haven't looked that up.

2927 Q. What is that stock worth now?

Same objection.

A. Of the Capital City Gas Light Company?

Q. No, the Des Moines Gas Company stock?

Same objection.

A. I entertain no opinion on that.

Q. Is it quoted anywhere

Same objection.

A. It is not.

Q. Is it for sale any where?

Same objection.

A. No.

Q. It is all owned by the United Gas Improvement Company?

Same objection.

A. Yes.

Q. You are the secretary of the company?

Same objection.

A. Yes.

Q. And a director?

Same objection.

A. No.

Q. When did you cease to be a director?

Same objection.

A. I never have been a director in the United Gas Improvement Company.

Q. You are a director however in the Des Moines Gas Company?

Same objection.

A. Yes.

Q. And the secretary of the Des Moines Gas Company?

Same objection.

A. Yes.

2928 Q. And you can't give the Master any idea of the value of those 22,490 shares of your company's stock?

Same objection.

A. I said I never formed any opinion.

Q. You haven't any opinion about it now?

Same objection.

A. No.

Q. You don't know whether it is worth any more or less than in 1906?

Same objection.

A. I should say it was worth more now than then.

Q. How much more?

Same objection.

A. I don't know.

Q. A thousand dollars more?

Same objection.

A. I don't know.

Q. Ten thousand dollars more?

Same objection.

A. I don't know.

Q. A million more?

Same objection.

A. I don't know.

Q. Now, Mr. Douthirt, I wish you would tell me how your company manages its finances in this respect. If I should want to know just how much money went into the treasury of the United Gas Improvement Company from the Des Moines Gas Company each year, where would I go to ascertain that fact?

Same objection.

A. The books of the Des Moines Gas Company.

2929 Q. Would they show it?

Same objection.

A. Yes.

Q. In what way do they show it?

Same objection.

A. Any payment made to the United Gas Improvement Company will show there.

Q. Payments, what do you mean, what for, what way?

Same objection.

A. There is on the books I think a running account between the two companies—something like standard forms of stationery supplies, and of that nature.

Q. This company here can't spend any money at all except in small sums, \$50 or under, without the authorization from the Philadelphia Company—where is the money that has been received by the Des Moines Gas Company from its sales of gas in the last five years?

Same objection.

A. Where is it?

Q. Yes; where will it appear on the books as having finally gone into somebody's account other than the Des Moines Gas Company?

Same objection.

A. Its ultimate disposition will appear on the books of the Des Moines Gas Company.

Q. In what way—suppose the Des Moines Gas Company on the 31st day of last December had \$135,000 in money, what would it do with it?

Same objection.

A. Why, if it had bills that were due and were to be paid, it would pay them. If they had any other—

Q. What do you mean by bills?

Same objection.

2930 A. Bills for materials.

Q. I mean after the payment of all local charges had been taken care of and they had \$125,000 left, what would they do with it?

Same objection.

A. If they had no debts of any kind that were proper to be paid, they would keep it.

Q. Would they keep it here or send it to the United Gas Improvement Company?

Same objection.

A. Oh, I see what you mean now. They would send it to the United Gas Improvement Company.

Q. What would they do with it?

Same objection.

A. The treasurer of the Des Moines Gas Company has a bank account in Philadelphia in the name of the Des Moines Gas Company, and sometimes funds are transferred to that account, especially when the period is approached for the payment of interest on bonds or something of that sort. The money is payable at a Trust Company in Philadelphia, for interest on bonds. The practice of the treasurer is to accumulate in the Des Moines Company's bank account in Philadelphia—

Q. Mr. Lilley is the treasurer of the Des Moines Gas Company and he is the treasurer of the United Gas Improvement Company of Philadelphia?

Same objection.

A. Yes, sir.

At this time an adjournment was taken until 1:30 P. M.

2931

130 P. M., THURSDAY, August 24, 1911.

W. F. DOUTHIRT being continued on direct examination by Hon. H. W. Byers, testified as follows:

Duplicate copies of defendant's exhibits numbered 2, 9, 10, and 11 are marked and identified and these duplicate copies may be used by either party with the same force and effect as the originals and are to be considered in evidence as fully as the originals.

Q. Will you turn to page 171 I think it is in that minute book No. 2, stockholders' and directors' and tell me whether on that page there is anything there about pipe. I am not sure that is the book.

Same objection.

A. Yes, sir.

Q. I wish you would read those items, that is where it begins four inch pipe \$31.40, six inch pipe \$30.45.

Same objection.

A. Yes, sir.

Q. And 8 inch \$30.45?

Same objection.

A. Yes, sir.

Q. Does that mean that was the price of that kind of pipe at that time?

Same objection.

A. I think the best I can do is to read the minute to you.

Q. I wondered if you know independent of that?

Same objection.

2932

A. No, I don't keep track of the price of pipe.

Q. Do you suppose you can tell either by reading that

entry or that meeting whether that represented the cost of that sized pipe at that time either here or somewhere else?

Same objection.

A. The best I can do is to read you the entry.

Q. Will you read it into the record?

Same objection.

A. Volume 2, stockholders' and directors' minutes Capital City Gas Light Company, directors' meeting of January 22d, 1906, contains the following, there is a heading here cast iron pipe, 1906 requirements. Then follows, approved action of officers in contracting with United States cast iron pipe and Foundry Co., for 60,000 feet, four inch cast iron pipe at \$31.45 per ton and 20,000 feet six inch at \$30.45 and 107,000 eight inch at \$30.45 amounting to approximately \$33,303.75.

Q. That probably meant laid down here didn't it?

Same objection.

A. I don't know.

Q. Is there any way you can tell that from the minutes?

Same objection.

A. No.

Q. You have no independent recollection about when you passed upon it if you did pass upon them?

Same objection.

A. No, I was not personally at that meeting and I have no recollection of that.

Q. I suppose these contracts probably are in existence so that we can get them and ascertain that fact or if you will have someone ascertain it for us.

2933 Same objection.

A. I have no doubt the contracts or documents bearing on the transaction are in existence.

Q. And will show whether that is the price laid down here or whether it was the price f. o. b. somewhere else?

Same objection.

A. I would think the contracts would show that.

Q. You didn't take the time or have anyone else take the time to make me up a statement covering the donations and contributions of the last four or five years?

Same objection.

A. I made some inquiries about that and learned or understood that the city's accountants had covered the matter very fully and I did not—it occurred to me perhaps you did not know that and when you did it would be unnecessary to duplicate the work.

Q. It must have been then the last day that the young man was here?

A. I don't know, I simply thought perhaps you did not know that and when you did know it you would not want to have unnecessary — performed so went no further.

Q. Now in going through the book there last night after court adjourned it seems that, if we can read the record right, that practically all donations and contributions and in fact the lodge dues in the different lodges of Mr. Haines are paid out of the operating expenses of the gas company, for instance, \$500 to the Des Moines Club and \$50 dues to some other organization all that class of personal expenses of Mr. Haines and contributions of that kind have been charged to the cost of making gas have they not?

Same objection.

2934 A. I would have to read the record to see what is there on that subject.

Q. Haven't you looked that over?

Same objection.

A. Not with that in view, I would be glad to do it if you liked.

Q. I have been assuming most of these minutes you either helped make them or wrote them up or approved of it afterwards?

Same objection.

A. That is true, but it is also true with a good many other companies and I have made no effort to carry these details in mind because they are always where I can refer to them.

Q. What is your judgment or personal opinion about the justness of that sort of a charge?

A. My judgment of course is that they are proper charges otherwise I would not have voted for them at directors' meetings which I no doubt have done as the records will disclose.

Q. What is the salary of the president of the Des Moines Gas Company now?

Same objection.

A. It appears by the—oh yes, I recall \$10,000 a year.

Q. So there was some raise in it and you were mistaken yesterday in stating no change was made in his salary from manager to president?

Same objection.

A. No, I think not. I think his salary as manager was fixed at the same figure some months ago.

Q. When was it changed from \$7,500

Same objection.

A. If you will let me have the records perhaps I can find it. Here it is at the meeting of February 27, 1911.

2935 Q. Up to January 1, 1911, Mr. Haines' salary was \$7,500 was it not?

Same objection.

A. That is my recollection. The book you have before you will show.

Q. Well \$625 a month?

Same objection.

A. That would be \$7,500 a year, yes.

Q. And in February of this year it was increased \$2,500, the increase to be effective from and after January 1, 1911.

Same objection.

A. Yes, that is my recollection, I see you are reading the record there.

Q. So that at the time then that Mr. Haines was elected president or about that time this change was made in his salary?

Same objection.

A. No, Mr. Haines was not elected president until July 1, 1911.

Q. So the raise was made before he was elected president?

Same objection.

A. Yes, sir.

Q. When that \$2,500 was added to his salary to begin on the first of January did Mr. Bodine's \$2,500 continue?

Same objection.

A. Yes, sir.

Q. Didn't make any change in that?

Same objection.

A. No.

Q. Now to get back to what I was trying to figure out, I don't find the exact item, but I will state it as I remember it the \$500 fee to the club here in Des Moines, Mr. Haines' membership in a 2936 club not a public club in any sense, but a sort of a private club, is it your notion that a charge like that ought to be paid by the gas consumers and charged to operating expenses?

Same objection.

A. Let me see the record please.

Q. I told you I did not have it right there, I have lost the page but I know it is there.

A. Do you remember about the date?

Q. Well I think it is within a year or year and a half anyway. I can get another one there that will answer my purpose if you can't find that one. On page 192 here is a record like this authorize a donation of \$1,000 towards the Young Men's Christian Association, \$150,000 building fund to be transferred from the unexpended balance of \$2,000 approved as donation to the Methodist and Mercy hospital. Now is it your notion that a donation of that kind is proper to be charged to the cost of making gas to be paid by the consumers?

Same objection.

A. Yes, that is generally recognized in the classification of accounts by the—that is so generally recognized that it appears in the classification of accounts of the Wisconsin commission and the American Gas Institute.

Q. Of course that was not what I asked you, I simply wanted you know your notion about it, your judgment about it and the reason that you have pursued that method. Now do you have the same notion about lodge dues and club fees and the personal expenses of your manager of that kind, is that proper to be charged to operating expenses?

Same objection.

2937 A. I would put the matter of lodge dues and fees to clubs on rather a different basis but my notion as you express it would be the same.

Q. What different basis would you put it on?

Same objection.

A. This basis that one of the things that a public utility should strive to do is to create as far as possible a kindly feeling towards it on the part of the community and one of the means to that end is for its principal officer to meet and become acquainted with as many people in the community as is possible.

Q. To make himself popular?

Same objection.

A. And a means to that end is the joining of such organizations as you have mentioned.

Q. And I suppose one of the reasons is that that will give him a standing and popularity in the community as a manager.

Same objection.

A. The more friends a manager of a public utility can have the wider his acquaintance can be the better it is apt to be for the utility.

Q. And it was partly on that account he was given this extra \$2,500 salary too I suppose and that is charged to the consumers in the cost of making gas?

Same objection.

A. No, he was given that extra \$2500 salary because the directors thought he was earning it.

Q. Earning it how, by getting customers?

Same objection.

A. Earning it in the management of the property of which Dr. Marks has spoken so highly.

Q. You mean in getting business for the concern?

2938 Same objection.

A. No, everything that goes to good management. Good management consists in operating a property as economically as is consistent with good results, giving the good service of which Dr. Marks spoke and also in increasing business as much as can be done along proper and legitimate lines.

Q. Well Dr. Marks was talking about his ability as a commercial manager more particularly wasn't he?

Same objection.

A. Yes, and he is also very efficient as an operating man. His early training was scientific and I think he would be regarded as a very efficient operating man aside from his abilities in a commercial direction.

Q. It is safe to say any way is it not that all of the contributions that have been authorized and appear upon Exhibit No. 27 for the last five years in the way of contributions to organizations in Des Moines, both charitable and others and such lodge dues and club fees as are authorized here were all charged up to operating expenses and went into the cost of making gas?

Same objection.

A. Yes, sir.

Q. And all such items as this very recent one here that is found in your record signed by yourself, or rather signed with your name under date of June 26, 1911, an authorized contribution of \$200 a year to the convention fund of the Commercial Club of Des Moines, all such things as that would be charged to operating expenses.

Same objection.

A. Yes, the classification provides for that.

2939 Q. Now I wish you would take what the reporter has marked defendant's exhibit 28, containing ten typewritten pages written on but one side of the page and under date beginning with directors' meeting April 24, 1911, and covering directors' meeting of the Des Moines Gas Company May 22, 1911, June 26, 1911, July 10, 1911, and July 24, 1911, and state if you will what that exhibit contains in a general way and what it is, I don't mean to give the contents of it, but in a general way descriptive of it.

Same objection.

A. It contains the draft of minutes of the directors' meetings of the Des Moines Gas company held on the dates mentioned which have not yet been entered of record in the minute book.

Q. So that Exhibit 28 taken in connection with Exhibit 27, comprises all of the records of the meetings of the stockholders of the Des Moines Gas company and the board of directors of the Des Moines Gas company from the beginning of its existence in March 1906 to and including the last meeting of the board of directors in July 1911.

Same objection.

A. July 24, 1911, yes, sir.

Q. I have the items here I could not find a moment ago and one of them is on page 172 of the book here under May 19, 1909, and is a \$500 contribution to the Y. W. C. A. building and other is a subscription of \$500 to some club during the first five years, do you know what club that refers to? That was Mr. Haines' personal membership in the club here was it not?

Same objection.

A. Well I don't know what significance you attach to the adjective personal.

2940 Q. Well it was his membership, the U. G. I. or Des Moines Gas Company did not join the club, did it?

Same objection.

A. No, Mr. Haines did.

Q. It also covered his annual dues of \$50 a year in addition to the \$500?

Same objection.

A. Yes, I think it says there the 500 is to be paid during the period of the first five years, that would be a hundred dollars a year I suppose or at least might be spread over five years.

Q. Unless he paid it all at once, I suppose you don't know as to that?

Same objection.

A. Yes, I know in a general way.

Q. That he did not?

Same objection.

A. I think it has not all been paid yet, because I have talked to some of the gentlemen who are interested in building the club and I understand that the subscriptions are not all called in but I have not examined the books of the company to see about that.

Q. Now in this book defendant's exhibit 27 and Exhibit 28 wherever the entry is made authorizing the expenditure of money for some stated purpose by the Des Moines Gas Company, does that mean that sum of money referred to in the statements represents the estimated costs of the improvement or the actual cost?

Same objection.

A. Represents the estimate cost of material and labor.

Q. And after the work is completed and the exact cost ascertained then that item is carried on into the books and shows finally
2941 the exact cost does it not?

Same objection.

A. Books of account, yes.

Q. And reports are made to the treasurer of the United Gas Improvement Company who is also the treasurer of the Des Moines gas company showing the actual amount of money expended for these different things that are covered by the entries in these two exhibits?

Same objection.

A. No.

Q. In what respect am I in error in that question.

Same objection.

A. I think that no such reports are made to the treasurer.

Q. I notice all through the book here that the report to the Des Moines Gas company of expenditures are made by the treasurer of the company is that right?

Same objection.

A. Oh yes I see what you mean. You mean the betterment statements that are made up of the issues of bonds. Yes, sir.

Q. Well whatever they are made up for?

A. Yes, sir.

Q. These statements are based upon the actual cost of the improvements and betterments that have all theretofore been authorized.

Same objection.

A. Cost of material and labor.

Q. Yes, I meant cost of material and labor.

Same objection.

A. But the treasurer's statements to which you refer are prepared from statements sent to him from the books of account and not from any reports on completion of the work.

2942 Q. The trouble with my question was that in it I stated the reports were made to the treasurer, was that the objection to the question?

A. Yes, sir.

Q. Well I suppose reports are made to the treasurer, aren't they?

Same objection.

A. Not the sort of reports that are covered by the question.

Q. Reports of expenditures, aren't they made to the treasurer?

Same objection.

A. Well the expenditures are recorded in the books of account and then—

Q. You have at both ends so the treasurer there does not need a report made up from the records because he has, as I understand you a duplicate ledger there at Philadelphia?

Same objection.

A. Well, yes, it is a duplicate ledger, what we call a trial balance ledger so kept he can get from it the information necessary to make up these reports of betterment expenditures which he makes to the board.

Q. Under date of April 24, 1911, in the minutes of the meeting of the board of directors for that day on page 2 of Exhibit 28, I find this statement, approved authorizations for expenditures amounting to \$25,423.26 as follows: Then follows the words street mains, length, size, street and then follows a large number of items beginning with 96 feet four inch-, day, name of the street, \$70.04. While you are here I would like to have you explain to the Master just what is involved in that item 96 feet four inch main, \$70.04. I have had that worked out here and it gives us 72.95 cents a foot.

Same objection.

2943 A. What was involved in that particular run of main I could not tell from what appears on the record.

Q. What I am trying to get at is, that it would not be either safe or proper to conclude from an entry of that kind that the cost of hat pipe alone was \$70.04?

Same objection.

A. Cost of the pipe alone?

Q. Yes, unlaidd.

Same objection.

A. Unlaidd, oh no.

Q. That is what I am trying to get at just what it does cover in addition to the probable cost of the pipe?

Same objection.

A. Well it no doubt covers the cost of laying too.

Q. And specials if there are any?

Same objection.

A. Specials if there are any yes.

Q. And all of these other items of expenses like cartage, storage and that class of expenses?

Same objection.

A. Yes, I think it would include all of that. All of the expenses which may properly be called material and labor.

Q. In other words where these authorizations are shown through Exhibit 27 and Exhibit 28 and the amount authorized to be expended appears the amount is simply the estimated cost of the finished job.

Same objection.

The estimated cost of the material and labor necessary to finish the job.

Q. And that is true is it of the pipe that appears on Exhibit 28 under date June 26, 1911, where it says approved authorization for expenditures amounting to \$11,074.60 and then under the heads of mains and size it shows 8 inch mains, that is shows some 8 inch mains, some 12 inch mains, some 2 and 3 inch, some 6, some 10 and some 20.

Same objection.

A. In the list which you have last mentioned which appears in the directors' meeting of June 26, 1911, you will note that some of the items are different, for example the item 450 feet 2 and 3 inch main on west Second street \$30.00 does not mean cost of laying that main, but cost of barring over as indicated on the face of the record, which means to go over that stretch of main and drive a crow bar down occasionally to see if there are any leaks there. That does not mean laying main, could not lay 450 feet of main for \$30.00. In the next item 2000 feet of four inch main on 38th street \$200, that is marked there lowering, that means changing the grade or position of that run of main and the same thing applies to 850 feet of ten inch main on University street \$625. That is not the cost of laying the main, that is the cost of lowering the main probably to conform to a changed grade of the street, something of that sort. Then here is another item 2,250 feet of 20 inch, four inch,

six inch and three inch on Mulberry street \$115. That is simply barring for leaks over there.

Q. Now as to all the other items the question would be answered in the affirmative would it not?

Same objection.

A. I would think so, yes, sir.

Mr. BYERS: Defendant offers defendants' Exhibit 28 in evidence in connection with Exhibit 27.

2945 Exhibit 27 is the book heretofore referred to as the Des Moines Gas company No. 1 stockholders' and directors' minutes beginning with the entry under date of March 1, 1906 and ending with the entries under date of April 4, 1911.

Cross-examination by N. T. GUERNSEY, Esq.:

Q. Mr. Douthirt you stated to explain why a 5 per cent bond of the Des Moines Gas company in 1906 although the company was not bonded for an amount that was large would not be worth par and you were interrupted. Will you complete that explanation?

A. Because many other elements or considerations besides the property security back of the bond enter into and influence its market value. One of the most important considerations is the rate of interest. Another is the length of time the bond has to run. Another is the provisions of the mortgage or deed of trust regarding future issue of bonds of the same authorized issue. Another is whether or not there are any prior liens. Another is the character of the property which is security for the mortgage and the use to which that property is devoted. Taking all of these things into consideration I was of the opinion and still am that the \$285,000 bonds of the Des Moines Gas company at the time they were issued were not worth par in the market.

Q. In several questions that have related to these extraordinary expenses,—expenses extraordinary as they are classified here, General Byers has referred to lodge dues. Now as a matter of fact are there any lodge dues so far as you know included in these 2946 items?

A. Not so far as I know. I assume that General Byers was reading correctly from the record.

Mr. BYERS: I did not claim to read any lodge dues from the record.

Q. I find this in the classification of accounts of the American Gas Light Association, account D-4, expenses extraordinary, the heading, and following that "This account is intended to cover the cost of all donations and unusual expenses." I will ask you whether generally that these public service corporations in their management and operation such expenses as these which General Byers has referred to are incurred.

A. My experience is that they are.

Q. And they are also incurred by other business in other communities?

A. I think so.

Q. There has been reference here to donations to the Greater Des Moines Committee for instance. Those are donations such as are made by every prominent business concern in Des Moines are they not?

A. I presume so.

Q. And the same way with the Y. M. C. A., or Y. W. C. A. I guess this was?

A. I so understand.

Q. Including public service corporations and other business concerns?

A. That is my information.

Q. And in this classification I find that under the account which referree to D-5 expenses extraordinary, there are the following items indicating things to be charged to that account: "Annual dues to Board of Trade, stoves and other appliances donated 2947 to churches or charitable organizations including insulation, subscriptions to public enterprises or entertainments, such as fairs, parades, public balls, etc., tickets for church and other benefits, unusual expenses." Now I wish you would state whether or not it is the practice of gas companies usually in the United States to charge these expenses extraordinary to this account as a part of their operating expenses.

A. It is. The classification you hold in your hand is evidence of that.

Q. That is this classification is the standard classification showing how they keep their accounts?

A. It is.

Q. I find in the Wisconsin classification an account headed miscellaneous general expenses and a direction to charge to this account "Subscriptions, donations and gratuity." Do you know whether the Wisconsin Commission recognizes expenses of this kind as a part of the legitimate operating expenses of public utilities?

A. It does and the classification published by the Commission from which you have just quoted is evidence of the fact.

Q. You were asked whether the minute books contained a truthful statement of who owned the stock of these two corporations, and as I understood you said that the statement there might be correct and might not. How did you mean to be understood there?

A. I meant to be understood in this way that the minute books would show a truthful statement of the stockholders as they appeared of record on the stock ledger of the company but might or might not show whether the persons in whose name the stock was recorded were the beneficial owners of the stock. It is not unusual for stock to stand recorded in a name other than that of the 2948 beneficial owner. That was what I meant by that language.

Redirect examination by Hon. H. W. BYERS:

Q. Now Mr. Douthirt you did not understand me to claim that it was not usual for gas companies to charge these expenses to operating expenses or cost of gas, in fact that is just what we do claim, but I wondered if you know what you were talking about when

you said that practically all of the concerns of this town did that or whether you were just speaking general-y without knowing any specific case at all other than your own.

Same objection.

A. I have been told what other concerns of the town are doing and I accepted the statements made to me as true. I have not examined their books.

Q. Mr. Guernsey I suppose told you that was common in public service corporations?

Same objection.

A. No, I heard it from other sources besides Mr. Guernsey.

Q. And so it was on that sort of information that you say that it is common here in Des Moines?

A. Yes, I have heard that.

Q. I wanted to know whether it is common, I would like to know myself?

A. Yes, I have heard these statements made in a way in which I have no reason to question the accuracy and therefore accept them as true.

Recross-examination by N. T. GUERNSEY, Esq.:

Q. It appears that these things were authorized by the board of directors. Now is my assumption that before action by the
2949 board of directors this matter was submitted with recommendations one way or the other, correct?

A. It is.

Q. Now what is the fact as to whether the manager when he submitted these things to you in order to induce the board to approve them advisee the board that other like concerns in Des Moines and other business concerns in Des Moines generally were contributing to these objects or doing the same thing?

A. I have a very distinct recollection in that respect about one of the important contributions mentioned there. That is the subscription to the Greater Des Moines Committee. I remember—I have a decided impression that when the manager recommended that contribution to the board of directors he informed the board of a number of other contributions being made to the same committee and gave the names of some of the concerns making them.

Q. In the analysis of the accounts that has been introducee in evidence of the operating expenses, the actual amounts paid on these accounts will appear opposite the heading expenses extra, will it not?

A. In the classification of accounts followed by the Des Moines Gas Company which is the American Gas Light Association classification such payments would be charged to the account entitled expenses extraordinary as appears from the classification which has been quoted here this afternoon so that the account expenses extraordinary or as it is abbreviated in the exhibits expenses extra, would

show the amounts expended each year for all purchases under that account for all purposes mentioned in the classification would come under that account.

2950 Redirect examination by Hon. H. W. BYERS:

Q. Just one thing further while you are here, what is the capital of the United Gas Improvement Co.?

Same objection.

A. You mean the capital stock outstanding?

Q. Yes?

Same objection.

A. It is an odd amount and therefore I cannot give it to you exactly, but it is in the neighborhood of 55 millions.

Q. And can you give us without going into the details and without the names of each one the number of gas light companies in which it is interested?

Same objection.

A. I have never counted them general, I would have to go over the list and count them up.

Witness excused.

Here the further hearing of the case was adjourned until 9:30 a. m. Monday September 11, 1911.

2951 Monday Forenoon Session.

SEPTEMBER 11, 1911—at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of Defendants resumed as follows:

GEORGE D. DOBSON, sworn on part of defendants, examined by R. L. Brennan, Esq., testified:

Q. Where is your residence?

A. In Des Moines.

Q. How long have you lived in Des Moines?

A. Since 1892, practically all the time, with the exception of a few intervals when I have been out of the city on engineering work or in obtaining my education.

Q. What is your profession?

A. Civil engineer.

Q. How long have you been practicing your profession?

A. About eight or nine years.

Q. Are you a graduate of any school?

A. I am; of the engineering department of Cornell College.

Q. When were you graduated?

A. In the spring of 1903.

Q. Have you practiced your profession in and about the city of Des Moines since that time?

A. Most of the time.

Q. Have you held any official position in the city, and if so, tell the Master what position you have held.

A. I have. At the present time I am in charge of the bridge work of the city, bridge engineer; and for two years, from 1906 to 1908, I believe are the dates, I was City Engineer. Previous to 1902 that time I was employed in various positions in the city engineer's department.

Q. Was that work such that you came in contact with street construction to any extent?

A. It was.

Q. Tell the Master in a general way what experience you gained in that direction prior to the time you became city engineer in the city of Des Moines?

A. The major portion of the work prior to the time I became city engineer was not directly concerned in the street improvements of the city. The major portion of it perhaps was of concrete construction—bridge and culvert, and the street work was the smaller portion of that work. After I became city engineer I of course had full charge of the preparation of plans and specifications for all public improvements which the city of Des Moines had to make, and in a general way had charge of all the improvements made in the streets of the city.

Q. And the improvements to which you refer included sewers, paving, curbing and public improvements of that character?

A. Yes.

Q. Now, from 1906 until 1908, during your term of office as city engineer, did the city to any extent improve its streets?

A. Yes, there was fully an average amount of public improvements if not more than the average at that time.

Q. Were any of the principal streets of the city improved during that period, if so, tell us what streets were improved?

A. As I recall it we paved West Locust Street from Second street to about Ninth street with creosote wood blocks.

Q. On what kind of foundation?

A. On concrete foundation; that is to say, we did not remove the old foundation which existed; that consisted of natural cement. We cleaned that off and resurfaced it with Portland concrete to bring it to a true grade and laid the new work on the new surfaced foundation. We paved portions of Walnut Street, as I recall, from Eighth to Tenth or Ninth to Eleventh, about two blocks, at the upper end of the business district, and resurfaced what had been brick pavement with asphalt, bringing it up to grade in the same manner I have referred to in reference to the creosote wood block. We paved Court Avenue from the river to the county court house with brick block, resurfacing the old natural cement concrete base and in some places a macadam base with Portland cement concrete, and laying on top of that the brick block pavement with Portland cement filler. We also paved East Walnut Street with the same class of pavement from the river to East Fourth or Fifth Street, as I recall; and Second Street, I believe, in East Des

Moines from Grand Avenue north for several blocks; and Des Moines Street from about First street to Third or Fourth with brick block pavement. That was all new work on a Portland cement concrete base, as I recall it. We paved Kingman Boulevard, I believe, from Twenty-fourth Street to Park Lane, which corresponds with about Forty-seventh Street with Asphalt pavement. We paved Ascension street from Fourth street to Sixth street with tar macadam.

Q. Tar macadam laid on what kind of foundation?

A. Cinders; that is to say, the construction consisted of six inches of cinders, four inches of coarse crushed stone and two inches of wearing surface or binder stone, mixed with tar.

Q. Was any portion of Woodland Avenue paved during your administration?

A. We paved, as I recall it, Woodland Avenue from the east entrance of the cemetery west to Twenty-eighth or Twenty-ninth streets, though I am not positive in regard to that. I know we had made certain improvements on the street preparatory to paving, such as curbing and grading, but I would not be positive that we had actually laid the paving on that street.

Q. Now with regard to the curbing and guttering of streets in the city during the time you have been connected with the city, what has been the character of the material which has been used in the construction of curbs and gutters?

A. The curbs and gutters have been constructed of Portland cement concrete altogether, so far as I recall. Some were laid on a gravel foundation and some of them were setting directly on the natural soil.

Q. Have you used to any extent what is termed as a combination curb and gutter?

A. Yes, that is used a good deal.

Q. That consists of concrete, does it not?

A. That is of concrete, sometimes surfaced on the top of the gutter with a richer mixture, and sometimes it is all built of the same mixture.

Q. What is the proportion?

A. For one course mixture it is one part cement to three parts of sand and gravel. If they use two course work they generally use about one of cement and four of gravel, with a one to two or two and a half face, but that sometimes varies, depending on conditions.

Q. You are familiar with the specifications for a concrete base for street improvements, are you, in the city of Des Moines?

A. Yes, I am in a general way familiar with the concrete specifications on the base of pavements.

Q. What is the thickness of the concrete base that is ordinarily used and usually used in the City of Des Moines for street improvements on the principal business streets?

A. Six inches is the ordinary thickness of base for new work on our business streets.

Q. And in the residence sections of the city?

A. At the present time five inches is considered standard thickness for the residence streets.

Q. How long has the five inch concrete base been used in the residence section of the city?

A. Probably not over four years. It may have been used to a certain extent before that, but for a great many years six inches was the universal standard in both residence and business districts.

Q. What proportions are used in making a concrete base?

A. For Portland cement, one portion of cement, three parts of sand and six parts of crushed stone; or one part of cement and six parts of properly graded gravel and sand mixed—what is sometimes called concrete mixture, which is obtained from the sand pumps at the river.

Q. In what manner is a street brought to grade, is that done usually by the public or the contractor who has the contract for the pavement or is it done by the city?

A. The city does the preliminary grading, putting the street approximately to grade with the finished pavement. It is then turned over to the contractor and he removes the same amount of dirt that is replaced with the pavement; that is to say, the pavement displaces a certain amount of dirt, and that is the dirt the contractor removes.

Q. Have you had experience in grading streets and constructing excavations and things of that sort?

A. Yes, I have had engineering charge of those details.

2956 Q. How extensive have the improvements been during your connection with the city with respect to sewer construction?

A. We built, I believe, about 20 or 30 miles of sewer while I was city engineer.

Q. And in what portions of the city were those sewers constructed?

A. There was a very large system built in Grand View, which is the northeast portion of the city. That was I believe a system of four or five miles; I couldn't recall the exact length, because it has been quite a number of years since we built it and those figures are given from memory, without having refreshed my memory recently. We also built what is called the northwest sewer system, lying in the northern part, in University Place.

Q. The Grand View system to which you have referred is that in the northeast section of the city?

A. Yes, sir.

Q. In the vicinity of Union Park?

A. Yes, it lies principally east and north of Union Park.

Q. The last system you mentioned is in the northwest portion of the city?

A. The northwest sewer system lies principally north of University Avenue and west of Twenty-fourth Street. There was one or two extensions to the Ingersoll run sewer system, including the district, as I recall, west of Thirty-first street and between Ingersoll run and University Avenue, some of it extending as far west as Pack Lane, I believe, on Kingman Boulevard; and the center Boulevard sewer system lying south of Grand Avenue in the vicinity, as I recall

it, between Thirty-fifth and Thirty-sixth and Forty-second Street; I don't recall the exact boundaries now.

Q. Do the systems which you have described include the 2957 laterals which were constructed?

A. Yes, they include, as far as we were able to do so, all the principal laterals that would be demanded on those systems, in order to spread the cost of the main trunk of sewers over the district to which it belonged.

Q. To what depth do you ordinarily go in constructing a sewer?

A. That varies from a few feet—just enough to cover the sewer to protect it from travel and frost—four or five feet, down to 22 and 23 feet. Of course that is an extraordinary depth, and is merely at points where we cross a ridge. Generally where a street has not been brought to grade there will be some deep cutting and shallow filling. But the ordinary depth might be safe to place at 8 to 10 feet on the laterals. The trunk sewers would probably range two or three feet deeper. The contractors who had the northwest sewer system and the center boulevard sewer system, used machines, ditching machines, which would cut to a depth of 20 feet, and as wide as five or six feet, if necessary. The rest of the sewers were built at that time, I believe, with hand work.

Q. Were they constructed of pipe or brick?

A. The principal portion of the systems were vitrified pipe, and some small portions of the Ingersoll run extension was reinforced concrete. I do not recall that we built any brick sewers.

Q. What is the reinforced concrete reinforced with?

A. Steel bars. The type designed was similar to a box culvert, approximately square and had a flat slab roof and flat sides, and the invert with the depression in the center so as to hold the minimum flow in the center in dry seasons. Of course they flay slab roof and flat sides had to be reinforced with steel to give them strength.

2958 The MASTER: Are vitrified pipe made of the same material vitrified brick are?

A. Quite similar. I never got into the chemistry of either brick or pipe manufacture, but the shale is to a great extent similar and the manufacture pipe and brick from the same shale pits here.

The MASTER: They are manufactured here?

A. Yes, there are several factories in the city.

Q. The Iowa Pipe & Tile Company is one of the concerns which manufactures sewer pipe?

A. Yes.

Q. And the Flint Brick Company, do they manufacture any tile or pipe?

A. As to that I am not positive, I do not recall that they do.

Q. Have you made observations, Mr. Dobson, with respect to the character of the soil and soil formations in the city of Des Moines?

A. Yes, in a general way I had to familiarize myself with the classes of soil and the character of soil in different portions of the

city in which we expected to make sewer improvements, both before the sewers were built and during the construction of these sewers.

Q. I wish you would describe in a general way the character of the soil in and about the city of Des Moines where sewers have been constructed or other public improvements have been constructed.

A. The soil in the down town district in West Des Moines is principally of a sandy and gravelly composition, indicating that it is river washed material. Apparently this bottom was subject to overflow and washing from the river. We winf the sand and gravel at various depths, ranging from almost the surface down to several feet in depth in the business districts of West Des Moines. The soil in the business district of the east portion of the city has a
2959 great amount of sand in it, but it seems to be of a finer character and has more silt mixed in with it. It is a class of material that will stand in a trench with less shoring than the materials in west Des Moines. The material in West Des Moines in the business district requires tight sheathing in a large portion of the district. In the residence portion of the city, the west and northwest, the material is more of a clay, except for the top soil of three or four feet. That is of a first class nature for trenching, except in rare cases where we get what we call sea mud at quite a depth. For instance on Twenty-third street from Cottage Grove south we had a deep sewer, 18 to 20 feet deep, and had a great deal of trouble there with sea mud, which has very little stability.

Q. At what depth was that encountered?

A. I believe we encountered that at a depth of 16 to 18 feet. I do not recall of ever encountering that character of material close to the surface, unless there was some along Ingersoll run in small spots. The district in Grand View or northeast Des Moines is more of a sandy nature; some considerable portions of clay, but there is a great deal of sandy soil there, with spots of quick sand, that according to my recollection ranges from five to ten or twelve feet in depth. These beds are very irregular, running very often in very small pockets; that is to say, a pocket of quick sand may only extend a rod along the line of the trench, and you may encounter it for two or three hundred feet.

Q. And at what depth below the surface do you find it?

A. I don't recall ever finding it any closer than five or six feet from the surface. Most of it that I do recall seemed to be at a depth of ten feet or more.

The MASTER: Is the clay hard pan or joint clay?

2960 A. I don't recall ever finding any hard pan. Most of the clay is yellow clay, easily handled with a spade. We find other colored clays at a greater depth—blue clay and some white clay. It all seems to be most easily handled with an Italian spade. On the south side of the river, take for instance south Ninth Street, I believe there is a harder formation of clay, ranging into shale. I don't recall the depth at which you find the shale along south Ninth, but I know it is very close to the surface in spots south of the river. That is true also with certain places in north Des Moines along the

edges of the bluffs, say in the vicinity of Sixth Avenue bridge. You will also find some shale along the vicinity of Arlington Avenue and State Street. Highhahn Park has principally clay on top of the hill, and down on the bottoms it is sand and gravel, very similar to the west Des Moines business district, being river washed or first and second bottom of the river.

Q. Now, you spoke of the character of the soil in the business section of west Des Moines being such that it required shoring or sheathing in constructing trenches?

A. Yes.

Q. To what depth do you ordinarily go before you are required to use sheathing or shoring?

A. That of course depends on the character of the soil. If you strike the sand and gravel right at the surface in one of these downtown business streets, it would probably be advisable to close sheathe from the surface down for a trench more than two or three feet in depth, because you would be subject to inundation from heavy rains and it might cause the trench to cave. So that it is hard to state just what percentage of the downtown district would have to be tight sheathed and what would not. For instance, when we 2961 built the West Locust storm water sewer from the river to Ninth street, as I recall, probably two-thirds of that was tight sheathed work that went to a depth of ten to fourteen feet. Of course, it being a deep trench, it would not do to take the chances that we would take in a shallower trench.

Q. Have you seen gas pipes being placed in the ground in the city of Des Moines at different points and different times?

A. Yes.

Q. Do you know what their practice is with respect to sheathing or shoring?

A. Yes, in a general way.

Q. To what extent do they use sheathing and shoring?

A. Well, I do not recall now seeing them lay any gas mains in the business district recently. I have seen them lay gas mains in the suburban districts quite a number of times without any shoring at all, and their practice would not be materially different from that in a shallow sewer. It is a question of the judgment of the foreman as to whether the material they are going through will stand for one or two days or whatever length of time it is necessary to have the trench open, and each particular class of soil is to be sized up by the foreman in charge.

Q. I was asking about your personal observation.

A. That is my observation; their practice does not materially differ from our shallow sewer practice.

Q. Is there any substantial difference in the depth of the trench for a gas main or water main?

A. According to my observations the water mains are laid somewhat deeper than the gas mains; perhaps one or two feet. However, as to that I am not accurately informed as to the exact depth.

Q. Have you seen gas mains repaired or replaced in the 2962 business section, and if so, what is the character of the trench used for the purpose of making repairs and replacements?

A. I cannot at this instance recall seeing any gas main trenches in the business district.

Q. Have you seen any water mains repaired or replaced in the business section?

A. Yes, I have seen water mains repaired on account of broken mains, but I do not recall any great amount of general water main work in the business district.

Q. Do you recall anything with regard to the trenches that were made for the purpose of making these repairs?

A. Whenever there was a broken water main, the soil naturally was saturated with water, making the condition not at all ordinary so that the trench almost invariably had to be sheathed.

Q. Now, Mr. Dobson, I want to ask you about rock formations. Do you know of any in the city of Des Moines which would be encountered to a depth of from three to six feet?

A. I don't recall of encountering any rock or shale, which is sometimes classed as rock, at such depth in our sewer work.

Q. You have encountered rock in your sewer work?

A. Yes.

Q. At what depth?

A. As I recall it, we found rock or shale on Sixth street and Arlington Avenue in the vicinity of the Sixth Avenue bridge at a depth of from 10 to 12 feet, though I would not be positive as to that depth.

Q. Now, I want you to give the Master some notion of the cost of paving streets in the city of Des Moines—take for instance brick block laid upon five or six inch concrete?

Objected to on part of complainant as being immaterial, 2963 because the cost of paving streets the way it is ordinarily done is not a fair criterion to the cost of repairing paving over mains.

A. The cost of brick pavement for the last year or two in Des Moines had ranged in the neighborhood of two dollars,—rather above two dollars perhaps than below.

Q. That is two dollars per square yard?

A. Yes.

Q. What does that include?

A. That includes all the grading necessary, to remove the dirt from the finished grade of the pavement down to the subgrade, smoothing off, leveling, rolling and laying the concrete base, furnishing and spreading the sand cushion, furnishing and laying the brick wearing surface—

The MASTER: What depth of sand cushion do you use?

A. Generally two inches. And furnishing and laying brick wearing surface and pouring the pitch or cement or sand filler, cleaning up and removing all rubbish.

Q. And furnishing all materials and labor for that work?

A. Yes.

Q. Does that include the contractor's profit?

A. That includes the contractor's profit and such discounts as are

necessary in cashing improvement certificat-on by the contractor as pay for the work.

The MASTER: Does that apply to all kinds of paving?

A. Yes, all of our street improvements in the city of Des Moines are assessed to the abutting property and that cost is spread over a period of six or seven years.

Q. The MASTER: Does that include asphalt and brick?

A. You mean the price?

2964 The MASTER: Yes.

Mr. BRENNAN: I was asking about brick first.

A. The price is for brick alone on a concrete base. We have not been doing a great deal of brick paving in Des Moines this year. It has been mostly small contracts, two or three thousand yards, small jobs here and there, an alley paved, and things like that, where the size of the contract is not very large.

Q. Do you lay any brick on said foundations in the city?

A. Yes, there has been what we call two course work, on a four inch sand bed, with the old style paving brick, which is very similar in size to building brick, laid flat, and then two inches of sand cushion on top of that, and a wearing surface of paving brick laid on edge, and generally a sand filler swept into the interstices between the brick, but that is practically abandoned now.

Q. Can you tell the Master about how many streets or portions of the city is represented by pavement of that character?

A. Well, it would be a little difficult to say off-hand. There is quite a little bit of that. That was one of the earlier type of brick pavement. Where the traffic has not been too severe and the foundation good those pavements are still in existence. Take for instance Arlington Avenue, in North Des Moines, is still in a pretty fair state of preservation. That was laid I suppose fifteen year ago. There are quite a number of streets of that character.

Q. Now, you spoke of creosote wood blocks laid on concrete base. Have we considerable pavement of that character?

A. Yes, there is a large amount of creosote wood blocks on concrete base in the business district.

Q. West Locust Street, for instance?

2965 A. West Locust Street is paved with that character of material, and East Locust, from West Twelfth, I believe, to East Sixteenth, it is paved with creosote wood blocks.

Q. Are those blocks laid upon a six inch base or a five inch base?

A. Those blocks are laid on a base varying in thickness probably more than six inches in average depth, because the original pavement consisted of brick was about four inches thick and two inches of a sand cushion and about six inches of natural cement concrete. The creosote blocks mostly are three and a half inches thick and they are laid on a sand cushion of about one inch thick; so that it was necessary to bring the old concrete base to a higher grade in order to leave the finished grade of the street at approximately the same grade as the old brick pavement, the difference being two to two and a half inches on an average of concrete on the top of the old base.

Q. I wish you would tell the Master what the city has paid for pav-

ing of that character, for the workmanship and material, including all the items, contractor's profits, etc.

A. For a brand new pavement on a concrete base where the contractor prepares the street grade by removing the dirt, the price has ranged as I recall it from \$2.80 per square yard to about \$2.90 and possibly as high as \$3. We have not done a great deal of creosote block work on new foundations. The creosote block on the old foundation, resurfacing the old foundation, ranges around, I believe, \$2.25; that is my recollection.

The MASTER: On the new foundation?

A. On the old foundation.

Q. What other streets have you in the city that you recall aside from Locust Street that are paved by creosote blocks?

A. Sixth Avenue from the Union Depot north to Grand 2966 Avenue, I believe, is paved with creosote wood block. Fifth

Street from the Union depot north to Grand Avenue I believe is paved with the same material. West Eighth Street I believe has quite a bit of creosote wood block in the business district. The Sixth Avenue bridge, which is a concrete bridge with an earth fill, is paved with creosote wood blocks, and the north approach of that bridge is also paved for a distance of about a thousand feet with creosote wood block.

Q. That is also true with the East Locust Street bridge?

A. Yes. I don't recall any more now.

Q. Now, going to the pavement consisting of asphalt laid upon a concrete base with a two or three inch binder, whatever is used, tell the Master what the contract price for that class of pavement has been?

A. That has ranged from \$1.58 per square yard up to \$2.15 cents per square yard I believe. The price where it has ranged over \$2 has not been under competitive bidding. Up to the time that the Maver Brothers Construction Company came into the city and began bidding on our work within the last year, has generally ranged around \$2 with only one paving concern bidding on the work practically all the time. Since competition was introduced the price has dropped until it is down to \$1.58 per square yard at the present time.

Q. What does that \$1.58 include?

A. That includes all materials, labor and expenses necessary in the construction of asphalt pavement. As I recall it that price of \$1.58 was bid on two streets recently with a one inch binder and a one and a half inch wearing surface and a five inch Portland cement concrete base. That is a residence district class of pavement.

2967 Q. The MASTER: The concrete base is broken rock and cement?

A. Yes, ordinary concrete, either crushed stone or sand and gravel mixed with cement in proportion to one-sixth of cement and the rest sand a gravel or sand and rock. That is mixed in a mixing machine the same as any other concrete and then spread out on the ground.

Q. The practice in Des Moines with regard to intersections has

been to consider them a part of the street improvement and assess the cost thereof to the abutting property?

A. Yes, the practice in Des Moines has been to assume the entire cost of the pavement of any one street to the abutting property along that street, including intersections, streets and alleys, inspection, clerical work, official advertisement, etc.

Q. Back 150 feet from the line of the work?

A. Yes.

Q. Except where otherwise waived by the property owners?

A. Yes.

Q. I take it that the prices which you have given the Master covering the cost of construction of pavements does not include inspector's fees and these incidentals you have mentioned?

A. No, it does not.

Q. These inspectors are in the work representing the city to see that the contract is performed?

A. Yes.

Q. They are not employed by the contractor in any sense?

A. No.

Q. And the clerical work to which you refer means the work necessary in the city clerk's office and engineer's office?

A. Yes, the preparation of the plans and the assessment schedules and other incidental clerical work.

2968 Q. I will ask you what the fact is as to the manner of paying contractors, whether they are paid in cash or whether the contractor is usually paid in assessment certificates?

A. It is practically all improvement certificates. Of course, some of the property owners pay cash, preferring to pay cash instead of letting it run at a six per cent rate of interest.

Q. I mean in the first instance, as between the city, and the contractor, what is the fact as to the manner in which payments are provided?

A. Paving certificates against the abutting property.

Q. You spoke of discounts. I would like to have you explain to the Master just what you meant by that?

A. The general contractor does not carry sufficient capitalization to be able to carry these improvement certificates until they mature, and so he must go to a banker or some investment company and sell them for what he can realize on them in order to go on with the additional work. That discount in Des Moines runs from two to three cents on the dollar ordinarily, according to the best information which I have available.

Q. And that is considered by the successful bidder in making his bids?

A. Yes.

Q. Have you familiarized yourself with the unit prices of materials and labor in the city of Des Moines in connection with street improvements or in connection with public buildings?

A. Yes, in a general way I am familiar with the unit prices of material and labor.

Q. Are you acquainted with the unit prices for excavations in the city, say trenches three to five feet in depth?

A. Yes.

2969 Q. And what would you say, Mr. Dobson, would represent the reasonable price per cubic yard for constructing trenches of the character to which I have called your attention?

A. That would range in the vicinity of 25 to 30 cents per cubic yard with the material removed, where there was no shoring to amount to anything.

Q. I want you to keep in mind a trench sufficiently wide to permit a six inch gas main or a three or eight inch gas main.

A. As I recall the width of trenches which are used in work of that character, 18 inches would be about the minimum width for a man to work conveniently in a trench of five feet deep and 18 inches wide. The cost of removing the dirt would be about seven cents per lineal foot according to my estimates.

Q. It would be how much?

A. Seven cents per lineal foot for a trench of 18 inches wide and five feet deep. The cost of trenching varies in the soil almost directly with the amount of dirt removed down to a depth of about five feet. If you go any deeper than that, the cost will increase and a straight yard basis is ordinarily a fair basis for estimating a trench from three to five feet in depth.

Q. As you go below five feet it involves additional labor?

A. Yes, the size of the spoil bank along the trench becomes so great that it has to be handled twice to keep it from getting back into the trench.

The MASTER: How much did you say per foot?

A. Seven cents per lineal foot. 25 to 30 cents per cubic yard. The back filling of a trench like that is very rapid and ordinarily in our sewer work is being done with a horse and scraper of some form, the horse being on one side of the trench and the scraper on the other, working back and forth. Of course if it
2970 is in a paved street the material has to be put in slower and tamped to prevent the pavement from settling, or flushed with water, and the trench either left open or the pavement merely put in temporarily, and then after the trench has settled completely, the pavement is relaid permanently.

Q. What do you estimate the price of the back filling to be?

A. I don't recall now that I have ever kept any data of the back filling of paved streets where it is tamped carefully from the bottom of the trench up. My recollection in regard to that filling, where it is put in by scraper and then flushed, is about ten cents per cubic yard.

The MASTER: Where there is no pavement?

A. Yes, on streets where no pavement are to be replaced.

Q. Now, if you had to have a trench some wider than that, what would be the increase in proportion to the width?

A. That would increase almost directly with the amount of dirt removed.

Q. Are you familiar with the prices of material used in concrete work?

A. I am.

Q. I wish you would tell the Master what the range of price is for work of that kind?

A. The price of material?

Q. Yes.

A. The cement on board cars in Des Moines at the present time is selling for about \$1.13 per barrel. I believe it has been bought lower than that by some contractors, and some perhaps are paying a little bit more than that, depending upon their ability as purchasing men. The price of sand is about 35 cents per cubic yard, I believe, if you buy it from the sand pumps.

The MASTER: Where is that at?

A. Along the river. There is an abundance of sand and gravel to be obtained at the present time by driving the wagons directly into the river and loading it up and it has been so all the time for the last two years. For instance at the Walnut Street bridge they have been buying sand and gravel mixed as it lays in the bars along the river, for from 50 to 65 cents per cubic yard. The screened gravel from which the sand has been mostly separated sells for about 80 cents per cubic yard at the sand pumps. Crushed stone brings about \$1.35 per cubic yard on board cars in the city. The cost of getting those materials to the paving depends on the location of the paving in the various portions of the city and the distance from the track or from the river where the material is obtained to the location of the paving.

Q. Now, in doing repair work, or for instance you are going to remove the pavement for the purpose of laying the pipe in the streets, can you use any of the material in replacing the pavement?

A. Yes, it is commonly done. For instance, in removing the concrete base it is shattered so that it is practically reduced to its original size, not entirely, but to a great extent. If proper care is taken in depositing that along the side of the trench so that it does not become mixed with the dirt there is no reason why that material cannot be used again and mixed with fresh cement and as much sand as is necessary to fill the voids and make the concrete base of the same material. The brick pavement has a great deal of salvage in it, the wearing surface, depending on the character of the cementing material or filler that was put in the original paving. Two course brick work you might say is practically all salvage—the sand cushion the sand base and brick. There is no reason at all why any material amount of new materials will have to be brought on the job for replacing two course brick pavement. The tar filled brick pavement would have less salvage, depending on the time of year that the paving is removed. When the tar is cold it has a very tenacious grip or cementing quality and there is quite often a very material breakage in removing the brick. If the pavement is lifted during the warm weather when the tar is soft, there is very little damage done. With the cement filler there is quite often a heavy loss of material and in replacing

the wearing surface it is quite often necessary to bring new material on to the job.

Q. By the way, what is the constituent element of this cement filler?

A. The ordinary mixture is one part of Portland cement to one part of finely screened sand, so that it will fill the interstices between the brick.

The MASTER: That makes a very hard cement?

A. Yes, that should under proper conditions make a very hard cementing material and when first class work has been done those joints should wear very nearly as good as vitrified brick. As a matter of actual practice there are a good many conditions which enter into the obtaining of a successful piece of work. A good many of our cement filled streets have not come up to the expectations.

The MASTER: It is not due to the ignorance of the contractor?

A. Sometimes it might be laid to the intent of the contractor or carelessness of the inspector, and sometimes unforeseen climatic conditions—a very severe rain in the evening after the work is completed may wash out a material portion of the cement filler, or if the brick are very dry and hot and this cement filler is poured, it might sap the life out of the cement, absorbing too much of the moisture.

Q. I want you to tell what other salvage might be used.

A. In creosote block paving, with careful lifting of the pavement the major portion of the wearing surface should be salvage. That varies also with the time of the year in which the pavement is lifted, the strength of the tar and binder having a great deal of effect on the ease with which we get the blocks out whole.

The MASTER: Do you fill them again with tar?

A. Yes. Asphalt pavement, the wearing surface can be mixed again with new material and relaid again. The binder is probably all lost; you might say it is all wasted; you will have to use a new binder.

The MASTER: What do you mean by binder?

A. Asphalt pavement as laid in Des Moines consists of three courses; the concrete base, composed of Portland cement, sand and gravel, and a binder course about one inch thick, of small crushed stone or gravel mixed with asphalt—sometimes called asphalt concrete—then on top of that is the wearing surface of sand and Portland cement mixed with asphalt and rolled out. The binder course has to be spread and rolled before the wearing surface is put on. It is the intent of the binder to bind the wearing surface to the base and give it a better grip or bond, more stability, so that it won't become wavy under traffic and disintegrate in that way.

The MASTER: You say the binder would be destroyed?

2974 A. It is very likely there would be very little salvage to the binder. It is so thin a layer and the cost of it is much less, and the trouble and labor of trying to separate it from the wearing surface and keeping it clean and gathering it up would probably off-set the value of it.

The MASTER: How about the top?

A. The top is generally removed in larger sheets. The value of the wearing surface is such that you can afford to spend some time on it in mixing new material with it on account of the value of the material in it. It possibly might be done on the bonder, although it is a question in my mind whether there would be any material saving.

Q. Would it be practical in a case of that kind where you are lifting a strip of pavement three or four feet in width to have your equipment on the ground to take care of the wearing surface and protect the salvage?

A. I believe there is a form of street machine that is sometimes used for that purpose. We never used it in Des Moines. My only knowledge of that is from reports of other people in regard to that. I can see no reason why it would not be feasible to do that. I know in laying pavement now it is quite often mixed at the plant and shipped possibly from one town to another and then heated in pans or machines along the line of work to the proper temperature and then spread and raked out and rolled.

Q. Mr. Dobson, in that connection I wish you would tell the Master who are some of the principal paving contractors in the city of Des Moines, or who have performed work of that kind in the past.

A. The principal asphalt contractors are the Bryant-McLaughlin Construction Company with headquarters, I believe, at 2975 Waterloo. They maintain a branch office here. The Mayer Brothers of Erie, Pa., I believe, is their home office, have a branch office here. These are the only two firms bidding on asphalt work in Des Moines at the present time. As to the creosote block work there is O. P. Herrick, who has laid some of the pavement. He is a Des Moines contractor. Jack Campbell laid quite a bit of it, and James Horrabin has laid considerable pavement here I believe.

Q. Is the Christie Construction Company engaged in that class of work?

A. The Christie Construction Company does principally concrete work. I do not recall whether they have laid any creosote block pavement in Des Moines. There may be others who have laid creosote blocks here, but I do not recall at the present time.

Q. There is a firm at Minneapolis that has done some?

A. Yes, the Republic Creosoting Company of Minneapolis and the Kettle River Quarries Company. In the brick paving line there are the J. W. Turner Improvement Company, J. L. Hansman, O. P. Herrick, James Horrabin, Jack Campbell, George King and the Cook Construction Company.

Q. I will ask you if Charles Weitz Sons Company has to your knowledge and experience in the city of Des Moines constructed any pavement for the city?

A. I never heard of them as paving contractors.

Q. Do you know of J. C. Mardis contracting any public improvement of that nature?

A. Not under my supervision or experience, so far as I recall.

Q. Mardis and Weitz Company are engaged in building construction, are they not?

A. Yes, I understood they confined themselves entirely to 2976 general building construction.

Q. Are you familiar, Mr. Dobson, with the price or cost rather per cubic yard of concrete, say for foundation work?

A. Yes.

Q. In a general way, tell the Master what in your judgment would be the reasonable cost per cubic foot of concrete used in buildings for foundation work and also in street pavement?

A. If you take crushed stone for your aggregate, the price of stone on board of cars, as I stated will be, \$1.35 per cubic yard, and taking into account wastage and shrinkage it will take almost a yard of crushed stone for every yard of concrete. We will say for instance where the mixture of sand is 50 per cent of the bulk or crushed stone, or say 1-2 $\frac{1}{2}$ -5, or 1-3-6, or 1-2-4. So that if you have to haul crushed stone from the car to your building site by wagon, say a half mile, it will cost you about 30 cents a cubic yard to get it delivered at the spot where you want to use it. That will bring the cost of the stone up to \$1.65 per cubic yard. Under present conditions you can get sand and gravel delivered within a half mile of the river for 50 and 65 cents per cubic yard—we will say 65 cents at the outside figure—use a half a yard of that for a yard of concrete, allow 33 cents for the sand in the yard of concrete; the amount of cement varies of course with the mixture. A 1-3-6 mixture will take about 1.1 barrels of cement and a 1-2 $\frac{1}{2}$ -5 mixture, which would be as rich as there would be any excuse for making any kind of building foundation, would require about 1 $\frac{1}{4}$ barrels cement. That cement is being purchased for as low as \$1.08 cents per barrel. But we will say it costs \$1.15 and if you haul it a half a mile it will take about 2977 five cents a barrel to deliver that and that would bring the price of cement to \$1.20 delivered at the job, the cost of mixing and placing varies widely with the efficiency of the foreman in charge and the conditions under which he is laboring. It has been mixed and placed in foundations, building foundations, that is, under conditions similar to building foundations for 50 cents per cubic yard; but if I were going to estimate the cost of foundations I believe I would allow a dollar a cubic yard for mixing and placing to allow for unexpected difficulties.

Q. Then what would be the aggregate of your estimate?

A. So that you would have as an aggregate \$1 for the mixing and placing, and for the mixture of 1-2 $\frac{1}{2}$ -5 you would have a barrel and a quarter of cement at \$1.20; that would be \$1.50 for cement and the sand would cost 33 cents; the crushed stone would cost you \$1.65, making a total cost of \$4.48 for the material in place under ordinary conditions. It would cost you far less than that if you just had to dump it into an open trench without forms.

Q. Does this \$4.48 include the use of forms?

A. That would include the ordinary range of conditions, sometimes with forms and sometimes without. As I stated the cost of

mixing and placing at \$1 a yard allows a very large percentage to cover anything like the cost of placing forms. Of course the forms on foundations are of the crudest and roughest character.

Q. If your buildings under construction were located in close proximity to railroads and sidings, would the unit price be limited on account of that?

A. Yes. For instance, if you had a railroad spur or siding in the same block with your building, we will say erecting a building in this block and there is a railroad spur on which a car can be spotted in the street adjacent, you can wheel direct from the car to the mixer and effect a *forty* material saving in that way. Of course a car of stone only contains about 30 to 40 cubic yards. You would probably use several cars in a day. Of course the sand and gravel, if you obtained it from the river, would be hauled directly on the job and dumped as closely to the mixer as the conditions might allow. That price might perhaps be reduced a little bit if you were closer than a half a mile, although the cost of getting the material on the wagon out of the river is quite an important item. The cost of a few blocks additional haul, considering a half mile haul, one or two blocks wouldn't make very much difference. If it was only a quarter of a mile you would possibly reduce it 25 per cent.

Q. What means of hauling have we here in the city of Des Moines outside of wagons; in other words, does the street Railway Company or Interurban Railway Company haul materials?

A. They do to a certain extent.

Q. To what extent?

A. I couldn't say to what extent, because as I understand it the major portion of that work is done at night after the general traffic is off the street, between the hours of twelve mid night and five A. M., so that it does not conflict with the ordinary traffic; but I am not sufficiently posted to be able to state to what extent that is carried on, though I am informed—

Complainant objects to what the witness is informed as being hearsay and secondary.

Q. They do carry on some freight business in connection with their other business?

A. Yes.

2979 Q. And that is true of the Interurbans is it not?

A. Yes.

Q. Then we have the Des Moines Union and the Des — Terminal Company?

A. Yes.

Q. Delivering cars to sidings and things of that kind?

A. Yes.

Q. Were you in the court room, Mr. Dobson, when Professor Marks was describing some concrete work with respect to the purifying house of the Des Moines Gas Company?

A. I believe I was.

Q. Something was said about the manner in which the forms were used there, what would be your notion of carrying construction of that character?

A. As I recall the particular piece of construction it was a form of curbing or coping somewhat similar to the ordinary street curbing used in paving work. I do not recall the exact height of it. I think about two feet perhaps and six or eight inches thick and approximately the same size; had a little finer finish on it than our curbing work for street purposes. The method of handling that small piece of work would differ a little bit from a piece of curbing work, because in organizing a gang for for a long stretch of curbing it is economical to use a large number of forms so that you can keep them going and busy practically the entire day filling forms, and for the next day's work perhaps move the entire set of forms forward; so that the forms are left in place perhaps a half day after the cement is put in place. In putting in a small piece of coping it is quite common to put the concrete in very dry and tamp it hard so that it has enough stability and that it will stand on the immediate removal of the forms—something similar to the ordinary building block which is made in a mould and the mould immediately removed. It is the same way with this class of coping under ordinary conditions, and that would be the economical and ordinary method of building such coping.

Q. I will ask you what connection you had with the construction of the bridge across the Des Moines river at its intersection with Locust Street?

A. I designed the bridge and as city engineer was in charge of the general inspection of the work from some time about the 1st of September of one year until the 1st of April of the next year, and then for a period of about two months I was the engineer in charge or inspector of the bridge personally.

Q. What is the character of the construction of that bridge?

A. That is a type of construction called reinforced concrete. It consists of five arches of reinforced concrete ranging from 72 feet in length to 92 feet in length on concrete piers and abutments and contains about 10,000 cubic yards of concrete, as I recall it.

Q. What connection have you had with the bridge now under construction over the Des Moines river at Walnut street?

A. As engineer of bridges I have had direct charge of the Walnut Street bridge.

Q. Is that the same type of bridge we have over Locust Street?

A. It is the same type of bridge, having six spans of shorter length, instead of five.

Q. About the same amount of concrete?

A. About 25 per cent greater; the street is wider.

The MASTER: Is the bridge wider?

A. Yes, both bridges are street wide. The Locust street bridge is 66 feet and Walnut street at that point is 82½ feet on the west side of the river; the width of the street on the east side is greater.

2981 Q. The Walnut street bridge is being constructed by what firm?

A. The John Wheeler Construction Company of Geneva, Illinois, I believe, is the home office.

Q. Do you remember what the contract price is for the bridge.

Objected to on part of complainant as irrelevant and immaterial to any matter in controversy here.

A. The original price was about \$169,000; that was afterwards slightly reduced.

Q. And the Locust Street Bridge, do you remember the contract price for that?

A. That \$124,800.

The MASTER: The Locust Street bridge is the first one built?

A. Yes, that is the upstream bridge; the one building now is the Walnut street bridge.

Q. Do you remember, Mr. Dobson, the terms of the contract between the city and some paving company for the repair of pavements in the city of Des Moines?

A. No, I have no personal recollection or knowledge of that.

Q. Do you know how the cost of repairing pavements corresponds with the original cost?

Objected to on part of complainant because if it is a matter of contract it is secondary and not the best evidence.

A. My knowledge on that is not direct.

The MASTER: The Locust Street bridge cost \$12.48 per yard?

A. Yes, if 10,000 yards is the exact amount, that would be the price.

Q. What would be the difference in concrete work of that character and foundation work for buildings?

A. There is a vast difference, on account of the foundations 2982 and the risk of floods and ice. Take for instance our foundations go down to a depth of about eleven feet below extreme low water and in going down to that depth we encounter all manner of drift and sometimes large boulders submerged logs and old debris and wreckage of all kinds which is imbedded in the river.

Q. Of what material are the piers and abutments constructed?

A. Of concrete.

Q. What iron is used in connection with reinforcing?

A. The arches are heavily reinforced with steel. While I could not say off-hand, but I believe there are about 100 tons of steel in the Locust Street bridge.

Q. In constructing a bridge of that character and type, is it necessary to have special forms?

A. Yes. The form work is rather careful, close construction. The construction of a bridge of that type calls for careful work in the construction of the forms and in the finish of the surface that is exposed to view, and that of course makes quite a considerable item in the cost of any concrete work.

Q. A great deal of ballustrade work and things of that sort?

A. Yes. There is something like a thousand piling driven into the

bed of the stream for excavation to set the piers on. These piling cost an average of ten dollars a piece making about ten thousand dollars as the cost of driving the piling. The cost of centering for the arches would be a great item. For instance you have to drive bents of piling about every fifteen or sixteen feet in spaces eight or ten feet up and down stream. The price of that centering is probably three or four times as great as the cost of forms for ordinary concrete construction on land.

The MASTER: You did not go to bed rock then in the construction of the Locust street bridge?

A. No, bed rock is about thirty feet below the surface of the water, as I recall it. We attempted to drive the piling to the bed rock.

Q. What is the character of the finish of the work?

A. The most of the cement surface was gone over after the forms were removed and rubbed with either block of wood or a block of carborundum, depending on the freshness of the concrete.

Q. And with a stipple finish?

A. No, the Locust street bridge was not stippled; there is no stippling or bush hammering as I recall on the Locust Street bridge.

Q. Mr. Dobson, in order to have it pretty fully in the record as to the experience which you have had in this city in connection with concrete work and public improvements in general, I wish you would state a little more in detail as to what other contract work you have been supervisor of or engineer or foreman or an inspector?

A. I designed and supervised the construction of culverts, concrete converts in the vicinity of Twenty-fourth and East Grand Avenue, and Twenty-eight and East Walnut, Twenty-eighth and East Dean, Twentieth and Easton Boulevard, on Sixth and Hartford on the south side, on Forty-first street in the vicinity of Forest Avenue, the north two arches of the Sixth Avenue bridge, and recently completed a design of small bridge across Four Mile creek at North Avenue, and one across the Des Moines river at North Avenue.

Q. Above or below these bridges?

A. That is about a mile above Locust Street bridge and two miles below the Sixth Avenue bridge. I have had personal charge of the curbing work as foreman—

2984 Q. What kind of curbing work?

A. Combined curb and gutter work principally, some sidewalk work, or rather pavements, leading from the street to the lot line in connection with the curbing work.

Q. Just what was involved on your part in the performance of your duties in connection with this work?

A. The bridge work which I have mentioned I was the designing engineer of all of it and sometimes the inspector in charge or general engineer in charge with the inspector under me at times. In the curbing work I have mentioned I was the foreman in charge of the construction gang. In addition to that there was a great deal of work done under my general charge as city engineer, but I was not on the work daily from morning till night but attempted to make the rounds of the work practically every day and to spend as much time on the work as I could spare from my office duties.

Q. Have you been called upon in connection with your duties as city engineer or foreman or consulting engineer to make estimates of the cost of prospective work?

A. Yes.

Q. For whom have you made such estimates?

A. In connection with my city work I have made many estimates for the city. In connection with my work as consulting engineer I made many preliminary estimates for the Western Land & Irrigation Company of Wyoming, with which I was chief engineer; and for the Marsh Engineering Company of Des Moines; the Inter State Realty Company of Des Moines.

Q. Did these estimates which you made from time to time involve a knowledge of the unit prices of materials and the cost of labor?

A. They did.

2985 Q. In the city of Des Moines and in the other places where you were engaged?

A. Yes.

Q. You have devoted all of your time practically since 1893 on this class of work?

A. 1903, yes. The principal part of my work has been devoted to construction work, either in connection with designing or supervising.

Cross-examination by N. T. GUERNSEY, Esq.:

Q. What is the Western Land & Irrigation Company?

A. That was or is a company organized for the purpose of irrigating certain tracts of land in the state of Wyoming.

Q. Who is the president of it?

A. The president of it is W. B. Martin of Des Moines.

Q. Former secretary of state?

A. Former secretary of the state of Iowa.

Q. Who is the secretary?

A. The secretary is W. H. Harwood of Des Moines, who is also I believe secretary of the Interstate Realty Company of Des Moines.

Q. What work did you do for the Western Land & Irrigation Company?

A. The work which I did for them was making surveys for the purpose of locating irrigation ditches and reservoirs and estimating the cost of ditches and reservoirs, dams, head gates, spill ways, and such other things as might be involved in the designing or construction of the irrigation system.

Q. When was this irrigation system constructed?

A. It was not constructed. I said my work was in the survey and location and designing and estimating the cost of construction.

2986 Q. Nothing was done after that?

A. No.

Q. When was this estimating done?

A. The estimating was done, as I recall, in 1908 and 1909.

Q. The work has not been commenced yet?

A. No.

Q. Do they ever expect to begin it?

A. They have hopes, if they are able to get into the bond market.

Q. If they can get somebody to put up the money?

A. That is what I understand.

The MASTER: Where is that?

A. Their land is situated in Carbon County, Wyoming, in the southern tier of counties in the central portion of the state; my headquarters were at Saratoga, Wyoming.

The MASTER: Is the cement made out there?

A. No the cement I used for the purpose of estimating the cost was made in Colorado, at Portland, Colorado, and I believe I got quotations from other firms. There is no cement made in the state of Wyoming that I have knowledge of.

Q. Now what work did you do for the Interstate Realty Company?

A. I did some work for them at various times in connection with their construction of street improvements in Gilmar Park, which is an addition in the vicinity of Forty-second and Ingersoll Avenue, that involved the designing of a sewer system, curbing and paving work.

Q. That is comparatively a new addition out west here?

A. Yes.

Q. They laid out some streets and put in sewers and curbs and cement walk and things like that?

A. Yes, it has been laid out within the last three years I should judge.

2987 Q. The Marsh Engineering Company, what is that concern?

A. That is a concern that build reinforced concrete bridges; they have headquarters in Des Moines.

Q. Are you consulting engineer for that concern?

A. No. I am not connected with the Marsh Engineering Company.

Q. I thought you mentioned it as one of the concerns for which you were consulting engineer?

A. Mr. Brennan asked me to name the work I had done for the city and as consulting engineer, and I mentioned in connection with that that during the period I was not connected with the city I did such work as came my way, either bridge or other engineering work.

Q. When was it you were employed by the Marsh Engineering Company?

A. I do not recall the exact date; I had occasion to make plans during the winter of 1909, I believe.

Q. How long were you employed by the Marsh Engineering Company?

A. I was not employed steadily by them and did not do a great deal of work for them; did a little work for them.

Q. Did some drafting and that sort of thing?

A. Well, you might call it drafting; I made some original designs in competition with the best designs they have been able to get

out and they were adopted by the Marsh Engineering Company, because the designs were more economical than those they had been using.

Q. You told us the Locust Street bridge cost \$124,800?

A. Yes, that was the contract price.

Q. Is that what it cost?

A. There were no extras involved; the only additional cost would be engineering which would amount to probably I should say \$2,000.

Q. You stated you designed that bridge?

2988 A. Yes.

Q. Do you know who the Thatcher Engineering Company is?

A. The firm you refer to I presume is the Concrete Steel Engineering Company of New York City of which Mr. Thatcher is president.

Q. What did they have to do with that bridge?

A. The principal thing he had to do, he came out and looked over my plans and threatened me with a suit for infringement of patents. I told him I would be glad to assist him in any way and if he could find any infringement the city of Des Moines would be glad to make it good.

Q. You adopted his plans?

A. No. Evaded his patents and did not adopt his plans in any manner or shape. Mr. Thatcher did not get a penny's worth of money or credit from the Locust Street bridge design.

Q. The contractor failed, didn't he?

A. I believe they failed during the construction of the work.

Q. Who was the contractor?

A. The Marsh Bridge Company of Des Moines.

Q. Was it related in any way to the Marsh Engineering Company?

A. The same men who are operating the Marsh Engineering Company were connected with the Marsh Bridge Company at that time.

Q. The Marsh Engineering Company was a sort of reorganization after the failure of the Marsh Bridge Company?

A. That is my understanding.

Q. After the Bridge Company failed, who completed the work?

A. The receiver I believe, as is customary.

Q. Did the city do any part of it?

A. As to that I couldn't state positively. My connection with the city was severed before that time.

Q. I had an impression the city finished up a part of the work?

2989 A. They may have finished a portion of it, I could not state positively; but it is my best judgment that the Marsh Bridge Company did not fail on account of liabilities incurred in that bridge.

Q. I didn't ask you anything about that. I suppose that would involve going into the finances of that concern.

Mr. BRENNAN: You wouldn't want that inference to be drawn then?

Mr. GUERNSEY: My purpose in asking the question was to get at the fact. The price of \$124,000 does not necessarily indicate what it cost.

Q. So that you do not know whether \$124,800 represents the cost of the bridge or not?

A. Not positively.

The MASTER: I understand you that was the contract price?

A. That was the contract price, and they had a first class bond up and the bond company and the receiver completed the work; that is to say, the receiver completed the work, and if there was any additional expense, the bond company stood between them and the city.

Q. Which is the more economical so far as making concrete and placing it is concerned, doing it in large masses or small masses?

A. Large mass work is always more economical, other conditions being the same.

Q. Not only in the matter of placing the concrete, but in the matter of forms and everything of that kind?

A. The organization of your whole construction gang is more economical for large work.

Q. What kind of mixers do they use in those large jobs?

A. They vary—

Q. I don't mean the name, but what type?

A. There are two distinct types principally used; one is
2990 the continuous and the other the batch mixer; there is also in contra-distinction of these two the gravity mixer.

Q. They do not use these gravity mixers here?

A. Not to any extent. We did on the Sixth Avenue bridge.

Q. These mechanical mixers on large jobs are operated by steam?

A. Steam or gasoline, and sometimes by electricity.

Q. Where have they been operated here by electricity?

A. On Walnut Street bridge.

Q. Of course it is not economy to operate by steam or gasoline a mixer on small jobs?

A. Why not?

Q. Suppose you get a small job of concrete, only 20 or 30 yards, how much does it cost to set up your machine?

A. They have very economical machines that weigh only about four or five hundred pounds and you can wheel them on to a job and mix a batch of three or four yards and two or three men can get hold of it and move it on.

Q. Tell us some jobs in which those machines have been used here?

A. You take the general run of curbing work and you may have noticed a little type of machine that is a continuous mixer; they throw the sand and gravel and cement into the hoppers continuously and that feeds with a set screw.

Q. We don't care how you operate the machine; I asked you to name some jobs in Des Moines?

A. The city of Des Moines is doing that every day during the construction season on side walk construction. J. L. Hansman is one of the contractors who uses one of the same type of machines the city does. While I could not attempt to state what any contractor in the city of Des Moines uses, it is so common that there isn't anything to be gained by quibbling over it.

2991 Q. So you don't want to quibble over it?

A. The less you go into that the more you will gain.

Q. I thank you for your instruction, but we will have to go into that ourselves. Take your ordinary job, what is the smallest curbing contract that has been let within the last three or four years say?

A. Oh, I couldn't state what the smallest contract is.

Q. I want to get the smallest job on which you used these things, give us the smallest curbing contract you can recall here.

A. I doubt if I could give you any information off-hand, without referring to the city records, because my personal information as to the size of curbing contracts is limited.

At this time an adjournment was taken until 1:30 P. M.

2992 1:30 P. M., MONDAY, September 11, 1911,

GEORGE E. DOBSON being continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. You said you graduated in 1903?

A. Yes, sir.

Q. From Cornell University?

A. From the engineering department of Cornell College, Iowa.

Q. Where is it located?

A. Mt. Vernon, Iowa.

Q. And since you graduated you have been in the employ of the city how much of the time?

A. Probably fifty per cent of the time.

Q. When were you first employed by the city?

A. In the spring of 1904 I believe.

Q. The year after you graduated?

A. Yes, sir.

Q. Did you remain continuously in the employ of the city until after the termination of your term as city engineer?

A. Not exactly. In a sense I was, I was with them on a salary basis for quite a length of time up to the completion of the construction of the Sixth Avenue bridge. After that my work for the city consisted of the designing of the Locust street bridge which was done on a contract basis and soon after the completion of that piece of designing I was elected city engineer, so that in a sense I have been continuously in the employ of the city since 1904 with the exception of about two years. About half of 1908, all of 1909 and the early part of 1910 I was not employed by the city.

2993 Q. During those two years how were you employed?

A. A portion of the time I was engaged in work for the Western Land & Irrigation Company. A portion of the time I was secretary and engineer for the Iowa State Drainage, Waterways &

Conservation commission. A part of the time I was engaged in general practice in the city of Des Moines.

Q. Now you said a number of streets were paved, west Locust, Second to Ninth. Walnut west to Ninth or Tenth street; Court Avenue from the river to the Court house; east Walnut street part of it and then some on Second north of Grand. All of that paving was renewal of old paving, all I have mentioned to you?

A. I believe it was.

Q. The streets had been paved and the paving was torn out and new paving was laid?

A. Yes, sir.

Q. Kingman Boulevard and Des Moines street were new?

A. Yes, those were new pavements.

Q. And on Kingman Boulevard there was a concrete foundation.

A. Yes, sir.

Q. Des Moines street there was too wasn't there?

A. Yes, sir.

Q. And this Ascension street experiment did not have concrete?

A. No.

Q. That didn't work out very well?

A. No; we regretted experimenting.

Q. Now this work, how much of this work that you have referred to has been done by the city itself and how much of it has been done under contract?

A. The paving work probably was all done under contract so far as I recall. There may have been odd jobs of repair work, but at that time there was a very low limit to the amount of work
2994 that the city might do itself by day labor and so you might say practically all of it was done under contract, all the street improvement.

Q. That included the sewerage, curbing and sidewalks?

A. Yes, sir.

Q. What bridge work has the city done itself not under contract?

A. The principal work that they have done in the bridge department is smaller culverts, ranging up to a \$1,000 or \$1,500 in cost. I can give you a statement of some of them if you wish. There was one on St. John's road which we recently completed this year, that was in the vicinity of 37th street. Another on Forty first street north of Forest Avenue. One on Dean Avenue I believe in east Des Moines, on the corner of 28th I believe and Dean Avenue, right next to the Hosiery mills. One on the south side at Sixth and Hartford, one out on the lower—well it is the bottom road south of Raccoon road and east of Eighteenth about a quarter of a mile.

Q. East of Eighteenth?

A. Did I say east, I should have said west.

Q. These are all relatively small jobs?

A. Yes, sir.

Q. They have all been done within the last year or two?

A. Yes, those I have mentioned.

Q. What other bridge work is there that the city has done that that you know of?

A. Those are the only ones that they have done under my supervision as engineer. There are other bridges perhaps.

Q. Those are the ones you have personal knowledge of?

A. Yes, sir.

Q. They have all been done within the last year?

2995 A. Within the last eighteen months at the outside. It might be less than that time but not over eighteen months.

Q. Now on those jobs have you kept accounts of the costs?

A. The records are kept on all of those city jobs and the total is footed up when the work is completed. That is to say all the items that enter into the cost of a bridge or culvert is placed on the records.

Q. Now what records show those costs?

A. Well the record in the department of streets and public improvements. The actual clerical work of keeping that book, I don't know what the record book itself or volume is. It is kept by one of the clerks in Mr. MacVicar's office.

Q. But what I want to get at is, where these records are that give you your information as to unit prices based on your experience. Can you describe these books so we can find them?

A. No, I don't know that I could give you the name of the book. Most of the data which I keep for my own use has been general data in regard to—

Q. I didn't ask you that, I asked you if you could describe the books. Now then can you bring in here the figures showing actual cost say of this culvert on the St. John's Road?

A. I believe I can.

Q. Will you do that for us?

A. I will if I can, if I can find the record as I believe I can.

Q. Will that record show what the concrete cost per yard or give information that will enable us to compute that?

A. Not the actual cost of mixing and placing. I don't know that the record was kept in such shape that you can separate all the items in the way that you perhaps have in mind. That is to say the record there shows the cost in account of cement, the amount of sand and gravel, the amount of steel, the amount of lumber and the total cost of labor that was employed on the city record book.

Q. Of course you haven't any detailed costs on this work that was done by contract and not done by the city?

A. I know—if you mean by detailed estimates no book records on any or all of this contract work.

Q. The contractors don't file with the city do they their figures showing in detail the cost of doing the work?

A. They very often file with the city an estimate sheet for the purpose of getting estimates. That is detailed to the extent of separating the various classes of work such as foundation excavation wet and dry, cost of pile driving, cost of putting in cofferdams, cost of centering, cost of frames.

Q. That is all bridges you are talking about now?

A. Yes, sir. The assessment work, paving, sewers and curbing have no such estimate sheets filed with them.

Q. On these two big large bridges then there have been some detailed estimate sheets filed?

A. Yes, sir.

Q. And where are they?

A. I have a record of those, there are probably several of them on file in the city hall. There is one in the department of civil engineer and I have one in my possession. A very easy thing to produce those if you care to look them over.

Q. Now then what work is there, take work you have been in charge of or been personally concerned with it where you have kept the costs in detail so that you have some actual costs?

A. Well the work on the Locust street bridge and Walnut street bridge and practically every other piece of work that I have
2997 been on as inspector and engineer I have made investigation from time to time as to the actual—

Q. That don't answer my question. I asked you what work where you yourself was personally concerned with it, I don't mean work contracted to somebody, but where the city has been doing the work or you have been doing the work that was being done or where you had charge of these matters, what work is there of that kind where you had an opportunity to analyze the cost?

A. The curbing work which was done in Gilmar Park I was required to keep a quite close estimate of cost there, and that was submitted to the owners on that from time to time to show how the work was progressing, to show whether we were keeping within the preliminary estimates we had set for the cost of the work and so far as my own records go I do not recall where I could lay my hands on detailed estimates of various classes of work that you refer to. A great deal of this matter is worked out—that is my own personal work. The cost is worked out on a unit basis under different conditions and so far as keeping a complete journal and jotting down items, elements that go to make up this cost I have not done that to any extent, but I have familiarized myself with practically every job I have been connected with or associated with, I have familiarized myself with the average cost of working under various conditions so that I am able to figure on an ordinary piece of construction work similar to the kind I have been engaged in what the cost would be.

Q. Now then what all intelligent contractors do is to keep account of these things on actual jobs and in that way ascertain just what the cost is, that is a fact isn't it?

A. I believe most contractors do keep a complete record.

Q. And they do not theorize about it, but they predicate
2998 their conclusions on their actual experience, isn't that a fact?

A. They do to a great extent the same as I say I have.

Q. Now what experience of that kind have you had, what job did you ever do at mixing concrete for instance. There is one thing you have referred to, that is hauling stone. Now tell us how many jobs you have done this where you kept an actual record of the cost of delivering the stone from the cars on the job?

A. I don't recall that I ever personally kept that.

Q. Now how many jobs have you done where you kept a record of the actual cost of the labor in mixing and placing concrete?

A. There have been numerous jobs where I kept these records either continuously or at intervals. The Locust street bridge.

Q. Give us one of them?

A. The Locust street bridge.

Q. That is a job where the contractor is doing it. Does the contractor furnish his books to you or do you ask his books to find out what he pays out and take his vouchers for cement or for hauling stone, do you do that sort of work with the contractor's books?

A. Yes those vouchers are filed with the city.

Q. All the vouchers filed with the city?

A. The receipted bills, the pay roll is receipted and filed with the city and cement and steel and stone and gravel bills.

Q. To protect you against mechanics' liens you have some sort of statement of that kind.

A. Yes, so that we have access to their records.

Q. It is from these statements filed with the city you have made up these things?

A. Not altogether. Taking into account these facts which I have been able to get access to and which I have verified to a sufficient extent to satisfy myself.

Q. So that we can take these statements filed with the city as to the Locust street bridge and compute these things from them can we?

A. No the records on the Locust street bridge were not complete. The records on the Walnut street bridge are very complete.

Q. Such records are filed with the city as will enable us to find out how much the cement in a yard of concrete costs?

A. No, sir; not these records alone, but in conjunction—

Q. That answers the question. Now will they enable us to tell what the labor in a yard of concrete is?

A. Not necessarily.

Q. Well will they unnecessarily?

A. Probably not.

Q. Don't you know whether they will or won't. Didn't you just tell us those were the records from which you made up your estimates?

A. No, I didn't just say that.

Q. Now will they show you how much the cost in a yard of concrete is on account of tools and machinery and that sort of thing?

A. They will not.

Q. Will they show you or will they enable you to compute the cost of any item that goes to a yard of concrete in place?

A. These records alone will not be sufficiently accurate.

Q. Now to get back to my question, where is the job of work you have ever kept these records so it will enable you to compute the detailed cost of a yard of concrete in place, basing it on your experience, not on what somebody told you.

A. I have kept records as I have stated and repeated before on

numerous jobs under normal conditions. The St. John's 3000 bridge was one and the curbing in Gilmar Park and the mixing and placing of concrete on the Walnut street bridge, the Sixth Avenue bridge and the Locust street bridge.

Q. In the Walnut, Sixth Avenue and Locust street bridges you have just said you did not have this information in detail as I understand it.

A. I said the records and vouchers filed with the city were not in such shape a person could go to them, that is in all probability — be very nearly impossible to pick out these items, but in conjunction with my personal knowledge of the work and record and investigation of the number of men employed in handling a certain amount of concrete that these records are of assistance in arriving at a fair cost.

Q. But that is not the question I asked you at all. I am starting out with a proposition that as to what would be a fair cost ought to be predicated on experience.

A. Yes, sir.

Q. That is sound isn't it?

A. Yes, sir.

Q. A man don't know what a thing costs him himself in doing work unless he keeps accounts carefully and accurately analyzes them, that is sound isn't it?

A. Yes, that is fairly sound.

Q. Now on what job of work have you kept the accounts in that way?

A. I have kept accounts as I stated before on every job I have been concerned with so that I can keep a sufficiently accurate estimate of the cost of the work as it is going in from time to time, the different classifications of work. But so far as having these records all in my office at the present time I have not got them, but that 3001 does not prevent a man from knowing full well the cost of these various items and being concerned with that class of work day after day and carrying that class of work in his head and is just as reliable for certain classes of work as though you had it in a note book and could only figure the cost of a bridge by referring to what it had actually cost on the last job.

Q. The question I asked you was to specify the job on which you had kept a detailed estimate. Now will you please specify that job, just give me one. Don't give us generalities, and don't give the Locust street bridge or Walnut street because we have been through them.

A. According to your theory then an engineer or inspector on a piece of work——

Q. I didn't ask you anything about that. Answer the question please.

(Question read.)

A. The Gilmar Park curbing.

Q. Now did you keep there a separate account of the cost of cement and cost of stone. Did you use broken stone?

A. Used gravel there.

Q. Didn't use any broken stone?

A. No.

Q. And cost of labor, cost of tools, and things like that?

A. Yes, I recall we kept everything itemized, labor, cement and excavation and tools lumber for forms, itemized it completely as possible.

Q. Now on what other job did you do that?

A. I don't recall at the present time any job where I itemized it as completely as I did on that personally.

Q. What did the cement cost you per cubic yard there?

A. I don't recall at the present time just what it did cost.

3002 Q. Do you recall what any item that went into concrete in place on that job cost?

A. Yes. It cost us as I recall approximately 75 cents a cubic yard to mix and place the cement, concrete.

Q. That was on curbing?

A. That was on curbing work.

Q. Do you recall any other item there?

A. The cost of excavation.

Q. For curbing you mean?

A. Yes. It was shallow excavation ranged from six inches to 12 inches in depth and 24 inches in width, that ranged around 16 or 17 cents a cubic yard as I recall.

Q. How did you excavate it?

A. Excavated it by shovel.

Q. What did you pay your labor a day?

A. We paid as I recall now \$2.25 for nine hours.

Q. Sixteen cents a cubic yard, how much would a man, you figure then each man would handle fifteen yards in a day. Isn't that going pretty strong?

A. Well I tried to make them go pretty strong I had to deliver the goods.

Q. Do you know any other job where that has been done?

A. Yes. That is to say I don't know as I can specify any particular job, but a good first class shoveler will handle that much work in that character of work.

Q. Especially easy shoveling was it?

A. No not extraordinarily easy shoveling, it was average.

Q. That would not leave you anything for tools on account of that part of the work would it?

A. The tool account you mean on the excavation? No
3003 that don't include the cost of the tools.

Q. That is one of the factors isn't it?

A. Yes, sir.

Q. So that they must have handled more than fifteen yards a day if you get all of your cost into your sixteen or seventeen cents?

A. No, I think that there is a misunderstanding as to what I mean. That is to say I do not include the cost of tools in the price per yard of dirt moved.

Q. It is part of the cost of moving it isn't it?

A. It was, but on that job it was kept as a whole on the entire piece of work, that is to say that—

Q. So that factor was omitted then from your concrete work?

A. The cost of tools was not included in the cost of seventy five cents per cubic yard. That was the actual cost of labor and supervision, did not include wear and tear on tools.

Q. Any other factors you omitted?

A. I do not recall now. If you would like some data on the cost of tools for the entire yardage of concrete I can figure that up for you and show the court how much the item of tools on a yard of concrete amounts to. Rather insignificant when you come to distribute it.

Q. Yes, just as seven cents does not look very big for a foot, but if you run into the hundreds of thousands of feet that is a factor and if the contractor omitted it he would probably go broke wouldn't he?

A. Well it would take a good many omissions of the character of tools to break a contractor with the ordinary profit that they figure.

Q. You think that profit is rather large?

A. I don't know that it is beyond reason for the class of work that they do. I would probably want the same profit if I were
3004 doing —.

Q. As a matter of fact it is true isn't it that the profit they figure and the profit they make is very seldom the same?

A. Yes, it is very seldom that the yards will come out and the dollars and cents the same as the contract figures. One time he may make a big cleaning and another time just barely skin through and another time go broke?

Q. That is on account of these contingencies and unforeseen expenses and things like that?

A. Not altogether, unforeseen conditions arise such as water, labor trouble or misjudgment on the part of the contractor in regard to a foreman or superintendent on a piece of work and things like that, of course that enters into it. It varies.

Q. The factors vary, you know they are going to be there, but you can't just tell what they are going to be?

A. Yes, ordinarily the contractor allows a certain amount for unforeseen expenses, such as five per cent or ten per cent, take it on a bridge job where you are liable to get floods he may allow as high as ten per cent of the total contract for unforeseen difficulties. Street work where you work on top of the ground the dangers are not as great and don't have to allow nearly such a large margin.

Q. Have you examined this soil map that is complainant's Exhibit No. 16, if I recall it correctly?

A. I had not examined it before the present time.

Q. Will you look at it hastily and tell us whether it is substantially correct in your judgment?

A. To what depth—is this supposed to be surface or how deep is this soil supposed to lay?

Q. I don't suppose much of it would go over five or six feet.

Objected to as not proper cross examination.

3005 Q. Just assume it would be a depth that would be proper for the laying of gas mains, that is what I presume is what the plat is intended to show.

Objected to as incompetent, assuming a state of facts not shown by the evidence and not proper cross examination.

A. It corresponds in a general way with my information on the soils of the city.

Q. The prices of paving that you gave were the contract prices at which the city had let paving jobs recently were they not?

A. I believe that is what I gave.

Q. They do not purport to cover a period of years or any considerable period?

A. No as I recall they were for the last year or two.

Q. Now then you gave \$1.58 for asphalt on concrete?

A. That was the lowest price that I have any knowledge of their ever getting in Des Moines, that was recently.

Q. What is the highest price you know of?

A. I think I stated it ranged over \$2.00 some fifteen or twenty cents.

Q. The average would be over \$2.00 wouldn't it?

A. Average of \$1.58 and \$2.00?

Q. Taking into account the amount of work done?

A. The average cost of paving actually laid in the city of Des Moines is probably in the vicinity of \$2.00.

Q. You mean asphalt or all pavement?

A. Asphalt, but recently under competitive bidding there has been an enormous break in the price. It is safe to say over ninety per cent of the work done in Des Moines was not under competition.

Q. Now how many contracts have been let at \$1.58?

3006 A. Two.

Q. Coverin^g how much paving?

A. I don't recall just how many yards. They are in the residence district, not any extraordinary large jobs, rather small as I recall.

Q. And with five inches of concrete?

A. Yes, and with one and one half inches of wearing surface.

Q. How do the ordinary specifications runs, the small amount?

A. The business district we generally use six inches concrete and two inch wearing surface. That makes a more expensive job of paving.

Q. Now this \$2.00 a yard includes the payment to the contractor?

A. Yes, sir.

Q. That is all?

A. That is the price that the contractor gets for the work, yes.

Q. It don't include engineering?

A. No.

Q. It does not include the work incident to the letting of the contracts?

A. No. When I say the \$2.00 that is not a hard and fast average at all.

Q. I understand that, but we are taking that as sort of an average price. It does not include advertising for bids.

A. No.

Q. It does not include the making of the assessments?

A. No.

Q. It does not include the inspection of the work?

A. No.

Q. It does not include the drawing of the contracts?

A. No.

Q. It does not include the engineering work as the work progresses, setting stakes and things like that.

A. No.

Q. You said it did include the discounts on the securities?

A. Yes, if there is any.

Q. Well you said ordinarily there was one?

A. That is my information, yes, ranging from two to three cents on the dollar.

Q. These securities are the liens on the abutting property?

A. Yes, sir.

Q. First liens?

A. Yes, sir.

Q. And mature in seven annual installments?

A. Yes, sir.

Q. Drawing interest at the rate of six per cent?

A. Yes, sir.

Q. And they won't take them at par?

A. Apparently not.

Q. They have to be discounted?

A. Apparently.

Q. That is part of the expense of the work, the contractor gets pay for that?

A. Yes, he has to take that into account.

Q. Now how do they pay for the bridges?

A. They pay for the bridges partially in cash and sometimes with paper depending on the condition of the bridge fund. The Locust street bridge contract as I recall was \$50,000 cash and the remaining portion of the price was to be paid in three annual installments of \$25,000 each and I believe bearing interest at six per cent. The Walnut street bridge was I think \$20,000 in cash and the remainder was payable in either \$10,000 or \$15,000 payment per annum, but it was afterwards changed and the price of the contract reduced on account of the city having sold said bridge bonds and having the cash with which to liquidate the indebtedness at the completion of the bridge.

Q. The city sold these bonds did it?

A. I understand they have yes.

Q. These bonds are drawing interest?

A. I presume so if the cash has been delivered.

Q. And I suppose the city has deposited what money it is not using in the banks trying to make it earn something?

A. Presumably.

Q. And the difference between the interest which it has to pay

and the interest it earns there, have you included that in the cost of the bridge or not?

A. At the present time you mean under the new arrangement?

Q. Yes.

A. No, I have not stated anything about the effect that that had on the total cost.

Q. You said it reduced it didn't you, reduced the contract price in consideration of being paid?

A. Yes, the contract price was reduced.

— Did you offset against that reduction or any part of it the interest which the city was losing?

A. I have not had occasions to figure that at all. I knew that the reduction in the contract price and the bonus which the contractor guaranteed the city on the sale of the bonds amounted to \$5,000 or \$6,000.

Mr. BRENNAN: About \$7,000.

A. I did not know the exact amount.

Q. Do you pay on this bridge any installments as the work progresses?

A. Monthly estimates, 85 per cent.

Q. So the contractor only has to carry for the entire period fifteen per cent of the cost of the bridge.

A. Yes, when the work is completed he has fifteen per cent hold back.

Q. Now these paving prices, returning them are prices for paving done as paving is ordinarily done in jobs that are several blocks long and covering the entire width of the street.

A. Yes, sir.

Q. It is your judgment it would cost less to do the paving necessary to cover a ditch for a gas main for instance, than to do this big job, less per yard I mean?

A. There are certain conditions of street construction here that would be more expensive I believe that relaying pavement in a trench. Now take for instance asphalt, you have the old pavement on each side and you don't have so much care and trouble about getting your grades on the work and the concrete that is there before you all the time, the men worked faster on account of that, do not have to gauge the thickness of the concrete or asphalt or wearing surface or take any great amount of time for that and when it comes to rolling you have got a straight away roll and it has got to iron out the same elevation as the asphalt on each side and you can use one big roller instead of a little roller and then a big roller as is done on all paving work so it would be my judgment that you could probably lay new asphalt pavement over a trench as cheap or cheaper than you might do under ordinary conditions.

Q. Is that judgment based on any experience?

A. Merely observation of the work, not on data which I have.

3010 Q. And that is your judgment that it would be cheaper per yard.

A. Yes; not taking into account any salvage at all.

COURT: What width do you figure on a main?

A. Well the trench would run from two to three feet in width. I suppose the larger mains would take even wider perhaps than three feet but there would not be any paving less than two feet in width I don't believe because ordinarily the pavement is opened up a little bit wider than the actual width of the trench.

Q. Now with reference to this trench. You make the excavation seven inches a running foot for a trench eighteen inches wide was I recall it?

A. Yes, sir.

Q. That is in what kind of soil?

A. Well that would be average digging, in what you would call average condition here in Des Moines. There are conditions where you had good digging that you would be able to dig a trench cheaper than that and there are classes of soil here it would cost you more but that is my judgment that is a fair average price.

Q. And that is predicated on what actual experience?

A. Well not on any great amount of detailed cost keeping but general investigation of sewer trenching from time to time in order to verify my own opinions and knowledge as to what that work has actually cost or should cost.

Q. Did you ever keep all the costs in trenching?

A. I don't recall I ever did on any extended amount.

Q. Well did you ever keep any cost of trenching?

A. Yes, sir.

Q. What job?

A. You mean that I was personally in charge of?

3011 Q. Yes, where you had personal charge?

A. Not any as foreman directly in charge I didn't keep any detailed cost.

Q. On one where not directly in charge, where did you ever keep detailed cost. I want the job specified and not an explanation showing why it is not necessary?

A. As I recall it now, I kept fairly close tab on some work which was done under my charge at the fair grounds, some tiling for drainage purposes that was in mostly a black soil.

Q. When was that?

A. That was in 1909 I believe, summer of 1909.

Q. How much work was done, how many miles?

A. I don't recall the exact length, I don't think it run into miles.

Q. Well how many feet?

A. There was several thousand feet of drain tile, four or five thousand possibly, possibly less than that, I don't recall exactly.

Q. How deep was it laid?

A. As I recall it ranged from three to four feet principally.

Q. Have you the figures?

A. I may have them some place in my records, I have not them with me.

Q. Can you remember any specific item of cost there going to make up the aggregate?

A. Of that trenching?

Q. Yes.

A. I recall that—no, I don't know as I could give you the dif-

ference in—that is to separate it into anything as to the cost per lineal foot.

Of course there was a division, that is there was two items 3012 the general cost of labor and a foreman on the work and the cost of staking the work out, but at this time I cannot recall what those individual items came to.

Q. Now then you took 25 or 30 cents for the labor for removing material from the trenches, that much per cubic yard in making your estimate did you?

A. That is my recollection that I gave that figure.

Q. That is for the labor for moving material from the trenches?

A. That would include the supervision, that is all items that would enter in.

Q. What are the items that are included?

A. Well for the price I have hiring the work done you have to have—that is on *lagre -ouk* you have to have a foreman in charge and his salary of course has to be distributed over the entire work and a certain amount of wear and tear on tools or loss by theft and cost of maintaining lights and such things as that if you are working in the streets, barricades you might say, to protect the general public.

Q. Well are these all the items?

A. That enter into the cost of trenching?

Q. No, that you considered here and got your 25 or 30 cents. Can you tell us what your 25 cents is made up of?

A. If you had a large enough amount of trenching so that you would employ a force of twenty men which is a sized organization that one man can keep going, that is one foreman would handle twenty men without any difficulty and you paid them at the rate of 25 cents an hour, a foreman on that class of work would get from \$3.00 to \$4.00 a day, an extra good man might get as high as \$4 an average would not be any greater than \$3.50 a day and the ordinary wear and tear and loss on tools for all trenching 3013 including by theft and breakage of lanterns, red lights and things like that, in my judgment would not amount to more than 50 cents per day for that size gang. That 25 cents per yard would necessitate the digging of a little over 700 feet of trench with a gang of 20 men. That is figuring the trench a foot and a half wide and five feet deep.

Q. That did not give me what I asked for. Did you there or can you now tell us the various items, how much on account of labor, how much on account of tools, how much on account of incidentals and so on, go to make up that 25 cents.

A. Well I have just stated my judgment on that is in the proportion I gave you twenty men at 25 cents an hour nine hours constitute a day's work would be \$45, a foreman at \$3.50 and 50 cents for loss of tools would make \$49 are the principal items.

Q. What are the other items?

A. Well there are incidentals that might enter into that, for instance you might encounter a boulder that would increase the cost of work in one instance or you might strike a little change in the soil that would cause a cave in where you had figured it would not

require any shoring. It might run it up to thirty cents, if every thing goes smoothly 25 cents should be ample to cover that but five cents a yard ought to cover all contingencies, unexpected and unforeseen contingencies.

Q. You make it about 20 percent then?

A. That should be ample on trenching, yes; rather large.

Q. Did you ever take some work with a gang of men and keep track of these things so that you know that these figures are right?

A. I never itemized them closely enough on a continuous job or anything of that nature so that it is based on absolutely daily records. And as I stated that my estimate of the cost of trenching is based on observation of sewer trenching that I have seen done, that is came under my observation and I have compared that at different times with the water and gas gangs as a matter of curiosity. I have not had occasion to keep tab on the water company or gas company because it is something that don't come under my charge so I didn't keep detailed estimates of that.

Q. Now going back is that seven cents a foot based on the 25 cents or 30 cents a cubic yard?

A. That figures seven cents a foot for 25 cents a yard.

Q. That don't include then that five cents for contingencies?

A. No.

Q. So if you include that contingencies would be one fifth more, be 1.4 making it 8.4 cents wouldn't it?

A. Yes, sir.

Q. That is for an 18 inch ditch, if it was two feet ditch, you would have to add one third to that wouldn't you?

A. I should think so.

Q. That would be 2.8 cents, that is right isn't it?

A. I believe it is.

Q. So that would make the excavation per lineal foot 11.2 cents on a two foot ditch.

A. Apparently.

Q. And the only estimate you made on back filling was scraping it in with a team?

A. That is my recollection, yes.

— And you put that at 3 cents a foot.

A. Yes, that is scraping back with a team and flushing with water.

3015 Q. And you would have to add one third to that for a two foot trench?

A. I presume so.

Q. So that would make that four cents?

A. Yes, sir.

Q. That would make your excavation and back filling 15.2 cents per lineal foot on a two foot trench on your theory?

A. Yes, according to all the information that I have on that.

Q. Do you know that the charge made by the water company for flushing is 3 cents a foot?

A. My recollection was that it was 2 cents, if I am mistaken in that if that information is not correct I am mistaken, but my recollection was *there* price is 2 cents a foot for back flushing sewers.

Of course sewers as I stated range from eight to twelve feet in depth and the amount of water necessary to flush would vary——

Q. Mr. Haines just tells me the water company charges 3 cents a foot for flushing alone?

A. Of the company's trenches?

Q. Yes.

A. Well he has information on the subject undoubtedly that is authentic.

Objected to as incompetent and mere hearsay.

Q. Your information was hearsay from somebody wasn't it?

A. Yes, as I recall it different times I inquired at the water company's office as to what they charged for back flushing sewers and they have told me of course so you might say it is hearsay, but I supposed it was authentic information, and the cost of flushing an 18 inch trench they would charge just as much for our ten inch sewer, that is where we had a trench narrow enough for a ten inch sewer apparently didn't make any difference in the size of the sewer, flushing over a 24 inch sewer for the same price that they did for a ten inch so that I don't know whether they have a hard and fast scale or sliding scale for different sized trenches.

COURT: You- understanding is it is two cents or three cents?

A. Two cents.

COURT: Two cents for flushing?

A. Yes, two cents a lineal foot for flushing for back filling.

Q. If as a matter of fact they charge three then you would have to add some more to your estimate?

A. Well I suppose that would enter into this if they flushed all their trenches.

COURT: This 15.2 cents includes the flushing?

A. That would, yes.

Q. That includes two cents for flushing as I understand it?

A. Yes.

Q. Now then most of these mains are laid under pavement are they not?

A. Gas mains?

Q. Yes.

A. It is my judgment most of them are at the present time under paved streets.

Q. Of course they would have back filling on paved streets——

A. If they actually lifted a paving and replaced it——

Q. I am not talking about lifting it and replacing it, I am talking about back filling.

A. On an unpaved street the trench I suppose would be back filled and flushed with water, it might be——

Q. Take the back filling on a paved street this method you describe could not be employed could it?

3017 A. It would not be impossible of course. The ordinary method, however would be tamp if you wanted to replace the paving immediately make a permanent resurfacing.

Q. The ordinances of the city provide you must fill it with sand doesn't it?

A. I don't recall as to that.

Q. Don't you know of that ordinance which provides that where you excavate on a paved street you must refill with sand?

Mr. BRENNAN: That is an old ordinance that is no longer in force has been repealed some time ago.

A. I know that we did have such a clause as that when I was city engineer that on paved streets trenches were supposed to be filled with back sand or gravel.

Q. What is the consequence if when you excavate in a paved street the earth caves or gives a little under the paving at the side of the trench, it is bad for the paving isn't it?

A. It is detrimental to the paving, yes.

Q. And makes it necessary either to take out more paving or to brace the ditch or to do something to preserve that dirt intact at the top of the ditch right immediately under the paving, doesn't it if you want to have a good job.

A. Not always on all kinds of soil.

Q. In a majority of instances you must have a sufficiently good holding soil to obviate the necessity for bracing under such circumstances?

A. No, I don't believe that is exactly correct take the majority of cases. I believe the majority of trenching in the city of Des Moines for trenches five feet in depth will stand in good shape, it is my first belief that over 50 per cent of the material will stand without bracing.

3018 Q. You don't think bracing would be necessary in more than fifty per cent of the work?

A. No, and while I have not kept any exact data on that I would not be surprised if it would run way over 50 per cent.

Q. Or might run the other way?

A. It might yes, but my judgment is it is fifty per cent or better of the soil is first class.

Q. Of course if that soil is loosened under the pavement that materially affects the pavement?

A. Yes, if it is loosened to any extent it is bound to in time affect the paving. It might not show up for eight or ten years, the pavement might wear out before that will show up.

Q. You estimated two and a half to three cents per running foot as the cost of the back filling. Now with two cents for flushing that meant from one half cent to a cent as the cost of the back filling itself, isn't that the practical result of it per lineal foot?

A. I presume so.

Q. Well don't you know?

A. If I estimated two cents for flushing and two and a half for the entire cost of back filling—

Q. Well isn't that what you said two and a half to two cents for the entire cost of back filling?

A. I was under the impression I said three cents.

Q. Well it was your estimate as a matter of fact?

A. The three cents where you do flush all your trenches would be a fairer figure.

Q. That is assuming it cost two cents for the flushing, for the cater?

A. Yes, sir.

3019 Q. Now then how many men do you require to do that work of back filling that way?

A. One man and a team will ordinarily or one man and a horse sometimes is used, that is scraper on one side and a horse on the other, sometimes where they have a large trench or large amount of work they will put a team and a man in order to facilitate the work, one man work on one side of the trench and one man on the other with a team.

Q. You take two men and a team to do the work under normal conditions don't you. You have got to have a man to drive the team and man to hold the scraper, that is right isn't it?

A. I would not state that was always under normal conditions, but it is done that way I know.

Q. Your man would be \$2.25 for a day of nine hours?

A. Yes, sir.

Q. Your team would be how much?

A. Be \$4.50 unless the contract- owned their own teams as they ordinarily do.

Q. Does the \$4.50 include the driver or not?

A. Oh yes.

Q. That would require these men to back fill 675 feet in one day?

A. Yes, sir.

Q. Just about what your twenty men would shovel out?

A. Yes, sir.

Q. How many yards of dirt would they handle there in that day with that team?

A. That would be about 187 yards if I have not figured wrong.

Q. You divide \$6.75 by that you find you are handling that dirt something less than four cents a yard don't you?

A. Yes, sir.

3020 Q. You don't want to revise your figures on that do you?

A. I don't think it is necessary.

Q. Not only handle it at four cents a yard but when you flush these sewers the dirt settles and you go over it how many times?

A. You get practically the entire dirt into the sewer with one handling.

Q. Don't it sink down after you have flushed it?

A. Certainly it does.

Q. Then don't you have to go over it again or do you leave it a hole there?

A. Perhaps be a little bit of dressing up to do. It would not be a very great amount though. The ground is ordinarily mounded up over the trench and allowed to settle into the trench.

Q. That can be done something less than four cents a cubic yard.

A. That is my judgment, yes.

Q. Now did you ever keep any figures on a job of that kind so you predicate this on some actual figures or is this just speculation?

A. This is not based on data I have of any particular job, just general information and mental notes I have made from time to time on general sewer work in the city. It might vary considerable in actual practice from that.

Q. When was the last time the city has bought any cement?

A. The city?

Q. Yes.

A. I don't know, they are using it right along on construction work.

Q. What did it pay for the last cement it bought?

A. I don't recall that I have any information on what it bought.

Q. Isn't that work all done in your department?

3021 A. Not all of the construction work no.

Q. Take the building of these bridges, this bridge they just finished out here on St. John's road south of my house there, what did they pay for the cement there?

A. As I recall it, that was \$1.40 a barrel delivered though I would have to refresh my memory on that. I think we have a yearly contract for cement with one of the cement dealers here in the city and that would in no way be a fair criterion on what contractors are buying it for.

Q. Don't the city buy things, under the commission form of government don't they run the city on a business basis?

A. It does, but that price is entered into according to law the beginning of the year. As I understand it they advertise for bids for certain material and the low bidder is awarded that contract if a fair price at that time. Cement fluctuates up and down the same as steel and other building materials do and besides that it is possible that there are combinations formed which the city cannot break and which contractors are able to evade. The city to a great extent in my opinion is subject to certain possible combinations, that is to say I have known of contractors being able to buy material much cheaper than the city and just because the city happens to pay a certain price for cement or lumber is not necessarily convincing proof that contractors are not buying it at a less price than that because as I stated the city inherently is subject to certain combinations which they are not able to dodge or evade.

Q. Then you don't think the city can do work as economically as private contractors?

A. I think they can in spite of these additional prices for some materials they buy evade the contractors' overhead charges
3022 and profits and still do the work cheaper if the work is properly handled. You might find particular instances where the city had done work at greater expense than the contractor and on the other hand you might find dozens of instances where the work had been done cheaper.

Q. But as a matter of fact there is no detailed statement of accounts so we can tell is there?

A. There is a record kept of the total cost of these various improvements.

Q. Yes, but it is not analyzed.

A. It is not analyzed in the same way perhaps that a contractor always analyzes his costs, but yet it is analyzed in a general way so that we know whether we are doing work within reason and within the contractors' price.

Q. Now then going back you said this bridge was one of those places or jobs you worked on as giving your unit prices of the various things that went into a yard of concrete didn't you?

A. I stated that I have kept more or less detailed record of the costs of various portions of that work down there the same as I have on all work that I have had supervision of.

Q. You didn't take the actual costs then as I understand it in getting at your estimate, but you deduct something. For instance you say it would not be fair to take what the city is paying for cement to be what somebody else would have to pay for it under like circumstances.

A. I know that you can get a quotation for cement for as low as \$1.13 per cubic yard on board cars.

Q. You mean per barrel?

A. Per barrel, yes.

Q. But as I understand the price which the city gets covers cost of delivery in all portions of the city. Sometimes might be a five mile delivery.

Q. Sometimes might be one block?

A. Possibly, yes.

Q. Now then you say you know you can get quotations on cement, you know that if this gas plant were reproduced it would extend over a period of one or two or three years don't you?

Q. That is my understanding.

Q. So it would not be any fairer to take prices of cement today in figuring on work like that than it would be to ask the city to take it when buying early in the year for the entire season would it?

A. It might be. The city is governed by certain fixed laws, the gas company is not. The gas company can take advantage of the market and if properly managed does take advantage of the market in materials, price of steel or cement or labor and they can build such portions of their work I take it when the market is right and if the market is materially low they could probably rush the letting of the contract for cement or other work. The city does not have the advantage of that.

Q. I don't want to discuss the legal end of it with you, I don't know this law you refer to, there may be one, but I never knew the law required the city to buy all material at one time, but whether there is or is not, I don't think makes any difference. Now then you said there was an abundance of sand and gravel could be obtained now from the river.

A. And for the last two years practically have been.

Q. That is when the river has been very low?

A. Yes; you may say abnormally low.

Q. It is an abnormal condition you base your statement on?

A. That is based on present conditions or for the last

year or two and it is possibly to a certain extent abnormal. That would not cover the entire year. There are certain periods of the year when the river is up and you can't get out sand and gravel. Then you have to buy from the sand pumps. On the other hand there are certain times of the year when the low water exposes the sand and gravel bars so you can get all the sand and gravel you want from the river without buying from the sand pumps.

Q. What experience have you had putting in concrete foundations?

A. Buildings?

Q. What buildings?

A. Do you mean for buildings?

Q. Yes.

A. I don't recall that I was ever personally in charge of any building foundations.

Q. Now you said concrete had been mixed and placed at 50 cents. That was on what sort of a job?

A. Well it would cover a very wide range of work. That is to say I have had authentic reports of mixing and placing on say buildings of this type over here for as low as 25 cents per cubic yard.

Mr. BRENNAN: You mean the Hewitt Hotel when you say over here?

A. Yes; the hotel over here in this block.

Q. When you say authentic reports do you mean persons who done the work or that you read something of that kind?

A. When I say authentic reports I mean my engineering journals which I regard as authentic reports if the reports are given in such shape and by such engineers in charge of the work that they appear to have had access to the actual facts.

Q. Have you any experience in your own work where it has been done at that figure, 50 cents?

A. Yes.

3025 Q. Where was it?

A. If you won't again object to my referring to the Walnut street bridge.

Q. Well that is not what I call your own experience.

A. Well if you bar an engineer from giving his experience where that has been done directly under his charge as a representative of the party that is paying for it, it would bar an engineer from a great deal of—

Q. I don't understand that on the Walnut street bridge you have actually analyzed accounts of the actual expenditures, is that true or isn't it?

A. I have as—

Q. Have you as a matter of fact had actual analyzed accounts on the Walnut street bridge or not?

A. I have had what purports to be the actual statements of cost for labor and wear and tear on machinery and all other items that enter into the cost of mixing and placing concrete there and I have no reason to believe that the contractor willfully misinformed me

in regard to facts which did not lie within the possibility of my own verification such as wear and tear on the machinery and the salaries that he was paying his foreman in charge of the work and so far as I was able to verify his statements his statements were all correct those that I did verify. For instance when I asked him how much he paid—

Q. He told you how much it cost him?

A. No, sir he did not.

Q. Did you get it from the books?

A. No, sir. I asked him the unit costs of certain items such as how much per day he was paying common labor, how much for foreman, how much for the men that were operating the
3026 mixing machine and how much his wear and tear on the machinery would amount to and the price that he was paying for sand and gravel and for stone and for cement delivered on the job and all of these items that I was able to verify I did, such as the item of what he pays the common labor, that is a very simple matter to verify that by asking the laboring men and the cost of getting sand and gravel that is let by sub contracts to—

Q. We are talking about labor incident to putting this stuff in place, you have got on to materials.

A. I stand corrected on that. The matter of keeping tab on the number of cubic yards of material that goes into a day's run is a very simple matter, that is measuring up the actual concrete we have placed when we get through at the end of the day and recording how many men working on that job in connection with mixing and placing is a simple matter. The item of wear and tear on the machine that he uses of course I relied on his statements as I say not working for him and did not have occasion to make up his records on that.

Q. Did not include forms?

A. Mixing and placing don't include forms, no sir.

Q. Nor labor on forms?

A. No, mixing and placing is a separate item from forms.

Q. Now you said this work such as this work in the purifying house here was usually done by ramming it hard and taking the forms right off of it so you could use it immediately for the next section. Give us some instances of jobs where it is done that way?

A. There is a piece of coping being placed at this time in front of the new municipal building on east Second and Locust street—
3027 where that process is being used. Coping there about, I should say eight inches wide and possibly a foot high.

Q. Laying it in thirteen foot sections and moving the boards just as soon as the concrete is poured so as to not stop the concrete mixer?

A. No, I don't hardly think they are laying it in thirteen foot sections or anything in that nature, but simply done—

Q. How long is the concrete set in place before the forms are removed?

A. It is not necessary to leave it in there more than—

Q. I didn't ask you that, how long is it set as a matter of fact?

A. On that piece of work over there?

Q. On that piece of work?

A. I have not been over there today all the time, but I know I went over by there at noon and a piece of work they had completed during the forenoon had been stripped. Green cement constituting their forenoon's work that had been stripped already. I have seen time and again coping work such as work around lawns which is in the same class of work, thin walls from a foot and a half to two feet in height and the concrete dropped and tamped into that and rammed good and hard and removed immediately. It is just the same as tamping damp earth into a form and removing the mould.

Q. Is this work you have been talking about seeing done water tight work?

A. I don't know for I never had occasion to test it to see if it was.

Q. Do you know whether this work at the purifying house is?

A. I don't know, if it was not naturally water tight it could be made water tight by either treating afterwards or adding water proofing compound to the material as it is mixed.

3028 Redirect examination by R. O. BRENNAN, Esq.:

Q. You spoke about the cost to the city for carrying on some of its public improvements. I will ask you if you recall any variation between the contract price and price at which the city did the work for the grading on west Seventh street from Grand Avenue to Chestnut.

Objected to as irrelevant and immaterial wholly.

A. I recall many instances where the work done by the city showed up much cheaper than that done by the contractors and for instance now this bridge that has been referred to several times St. John's bridge. I was asked by a contractor what it cost us to build that and he commented on the low price in comparison to what they ordinarily got. As I stated before there might be an instance here and there where the price would range higher than the contract would.

Q. I was just calling attention to that street if you recollect that?

A. Yes, I do recall that particular instance as a very wide range in favor of the city.

Q. Now do you know what the Des Moines Gas Company pays its laborers?

A. No, I do not.

Q. Do you know whether they pay them as much as \$2.25 a day for nine hours' work?

A. I do not.

Q. The city's employes work how many hours a day?

A. Eight hours.

Q. Now you stated in to tell something about the item of the wear and tear on tools entering into the cost of mixing and placing a cubic foot of concrete you said it was inconsiderable. Now just how much of a factor is it, that item?

3029

A. You take a mixing machine such as the city uses for small bridge work, sidewalk work and such concrete work as we do and that cost originally probably \$350 as I recall. That has been in use three years and according to my information on that has been I think something like \$150 of repairs in that time.

Q. In how many years?

A. Three years. Now that machine has been going pretty constantly for the greater portion of the time during the construction season which lasts six months. It is not operating continuously on any one job from morning to night because the nature of the work very often is such that the men will shut down the machine and do form setting or something of that nature while the machine stands idle, but even suppose that machine had been worn out and was in the scrap heap now there is an item of \$350, then you have for shovels and wheelbarrows and some lights so that the average amount of machinery and tools used by a construction gang of say fifteen men would perhaps run to \$450 and ordinarily that would last fully three years, in all probability a great deal longer and in that time if they were working day after day say six months in a year they would put in one hundred and fifty days of labor so that would be four hundred and fifty days' labor and that gang of fifteen men with a type of machine like that could turn out seventy five yards of concrete.

Q. In what length of time?

A. In eight hours.

Q. Is there anything complicated with respect to the operation of one of these mixers?

A. No, it is simple, the ordinary foreman seems to be able 3030 to pick it up.

Q. Require any high grade mechanics to operate it?

A. No.

Q. Do you know whether they have on the market small portable concrete mixers for small jobs?

A. Yes, they have small portable mixers micing as small as three or four cubic feet to the batch and easily hauled around. Take for instance this mixer that the city used when we are laying sidewalks they set it right in the middle of the sidewalk on a couple of two by eight planks and they run a certain amount of concrete through there and place it back at the back end of the machine, shovel it right into place and when they have laid a section say as long as a two by eight plant sixteen feet long the machine is run forward on to other planks by the men in charge and it does not take but two or three minutes to remove the machine either. That is not the smallest type of machine on the market and with the modern types of machinery that have been perfected and put on the market within the last two or three years, the cost of mixing and placing concrete in small work has been brought down very close to mixing and placing on large work where you have a chance for organizing and operating a large mixing plant and practically all sidewalk and curb contractors now use small portable mixers and move them many times a day.

Q. I wish you would tell us what general data you have collected with regard to the unit prices entering into concrete construction.

A. The item of labor of course varies very widely in favorable conditions as I stated it will be mixed and placed for less than 50 cents and you will sometimes under difficult situations—it will run to a dollar a cubic yard though that is not likely with machine mixing, that is more likely to be the case for hand mixing. The cost of sand and gravel and crushed stone I have had occasion to verify many times in the last month by personal inquiry of the material men that sell those materials and cement the same way. For instance just a few days ago I had occasion as a member of the committee for the Hyperion Club to get prices of cement delivered at the Hyperion Club site and got a price of \$1.13 a barrel out there on the Interurban.

Q. Where is that located, how far from the court house?

A. Eleven miles from the court house and takes a fifteen mile haul on the Iowa freight tariff.

Q. Can you tell the Master at this time what Mr. Wheeler is paying for labor on the bridge, that is that class of labor which has to do with the mixing and placing of concrete.

A. He is paying or was the last time I asked him some two weeks ago, 20 cents per hour for general labor on the bridge, common labor such as is used for mixing and placing concrete.

Q. How many hours constitute a day's work?

A. Ten hours, \$2.00 per day.

Q. You spoke of having done some work in Gilman Park Addition. Was that work which the city did or which the persons who platted that addition had done by private contract?

A. That was work done by the owners of the addition by day labor and I was the foreman in charge of the construction work and did all the work of checking materials brought on the job and keeping time, staking out the work and running the work myself just the same as though I had been the contractor.

Q. And that work involved grading did it?

A. It involved the excavation of the trench for the curb.

3032 Q. And the construction of the curb?

A. Yes, and the back filling.

Q. Preparing the roadway for the paving?

A. No, I did not have charge of the paving work. That was done under another contract and my work on the paving was of a general nature. That is to say I recommended the type of paving that was adopted and the plans and specifications were prepared under my recommendation and then the contract was let and work done under city inspection.

Q. What is the fact as to these public contractors who are entitled to partial estimates from time to time as the work progresses whether they have in the past which has come to your knowledge filed the pay rolls and the contracts for the materials which have been used in connection with the work and in that way have you become familiar with the cost of labor and material?

A. The matter of filing pay rolls and estimates of material, that is receipted bills for material is one of the requirements on general contract work where they get estimates and those of course have afforded opportunity to get data in regard to cost of material as those were filed and then occasionally on some work I have had access to the contractors' records to a certain extent, that is to say most contractors whose work I have inspected when they are asked for the cost of certain materials have been very free to give me their records of costs, that is to say receipted bills for material. For instance if I wanted to know what steel was costing I have never yet found a contractor who would refuse to show me his bills for material and those are the ways in which I have secured a great deal of the data in regard to cost.

Q. So that you have in connection with your duties familiarized yourself in that way and kept in touch with the market prices.

A. Yes, sir.

Q. Of labor and materials?

A. Yes, sir.

Q. Now are you called upon from time to time and have you been called upon in connection with your duties as city engineer to prepare and submit estimates of the cost of curbing for instance along streets?

A. Yes, while I was city engineer that was one of my duties.

Q. In making up those estimates for the benefit of the city council what factors were necessary to be considered by you in connection therewith?

A. The location of the work distance of haul, length of haul from the source of supply of materials, the amount of excavation involved and the character of the soil, etc., that would be encountered.

Q. What is the fact so far as you have observed as to the extent which the gas company has laid mains either before the streets were paved or at a time when they were being repaved? Tell us in a general way.

Objected to as irrelevant, immaterial because not asking for present conditions.

A. My recollection of that is that the major portion of their mains that have been laid during my connection with the city were laid on unpaved streets. I do not at this instant recall very many cases where they lifted the pavement.

Q. Since you went in as city engineer in 1906 as I remember your testimony this morning?

A. Yes, sir.

Q. And from that time up to the present Court Avenue from the river to the Court House, Walnut Street, Locust street and a great portion of Grand Avenue has been repaved and the pavement has been reconstructed during that time?

A. Yes, it is a fact that the west Des Moines business district has practically been repaved since 1905 complete. There are very few

pavements in existence in the business district that were laid according to my recollection prior to 1905.

Q. Do you know about how many times Walnut street from the river, that is in West Des Moines, from the river west to 15th street has been paved or repaved within the last ten years?

A. Well it was repaved with asphalt from Second street west as I recall it in 1905. That extended as far as Tenth street I believe.

Q. What was the character of the pavement just preceding the placing of the asphalt on the street?

A. That was brick pavement.

Q. And do you know how long that brick pavement had been down?

A. Not from personal knowledge that is, I do not recall. Of course the records at the engineer's office show.

Q. Do you know whether the street was at one time paved with cedar blocks?

A. That is what the record shows.

Q. Is that true as to the other streets?

A. Very many of them were paved with cedar blocks.

Q. Was brick afterwards substituted and then asphalt or creosoted wood block substituted for the brick?

A. Yes, sir.

Q. Now with regard to these improvement certificates they are delivered to the contractor in full payment for his work and where the property owner waives of course they are certified up to 3035 the treasurer?

A. Yes, sir.

Q. And collected by the County Treasurer each year in seven annual installments?

A. Yes, sir.

Q. So that the contractors as a rule have been in the habit of selling these securities?

A. Yes, sir.

Q. Have you made any observations with respect to the manner in which crossings are constructed under street railways or steam railways for the purpose of laying pipes or mains?

A. Not to any extent I could not state that I have carefully observed that is except for sewers. For a sewer ordinarily——

Q. There you have to go some depth?

A. Yes, that is a deeper excavation so they can tunnel without any difficulty so the width of a street railway track that interferes is only about seven feet or such a matter and for a sewer ten feet deep it is a very simple matter to tunnel under it.

Q. Have you seen them place underground conduits under street railway or steam railways, or have you seen them construct trenches for the purpose of laying gas pipes or water pipes under street railway crossings?

A. I have seen all those operations, but do not recall any unusual feature about them that attracted my attention at the time.

Q. I want to ask you in a general way where a trench is to be excavated to a depth not to exceed five feet could you see any real

occasion for bracing or sheeting in a trench of that size where it is say from eighteen inches to three feet in width and not exceeding five feet in depth?

3036 A. As I have stated a majority of the soil that has come under my observation in the city is such it would not require bracing or sheeting for the depth of trench.

Recross-examination by N. T. GUERNSEY, Esq.:

Q. Do I understand you to say that on the Walnut street bridge they are paying \$2.00 a day for ten hours for ordinary labor?

A. That is the last report I had from there.

Q. And what is the city paying for the same kind of labor?

A. I believe the city pays 25 cents per hour—no it is more than that it is \$2.25 for eight hours, that is about 28 cents.

Redirect examination by R. O. BRENNAN, Esq.:

Q. Do you know what the ordinary contractor pays for teams?

A. For hiring teams?

Q. A man with a team to do back filling or any work along that line of work?

A. When they hire a man with a team at the present time they pay about 50 cents an hour. Sometimes less than that under certain conditions, as a scarcity of labor, but 50 cents an hour would be a fair average price.

Witness excused.

3037 JAMES PARKER being called on the part of the defendants and sworn and examined — chief by R. O. Brennan, Esq., testified as follows:

Q. Where do you reside?

A. Des Moines, Iowa.

Q. How long have you lived in this city?

A. About 22 years.

Q. What is your official position at the present time?

A. Assessor city of Des Moines.

Q. How long have you been assessor for the city of Des Moines.

A. About three years and a half.

Q. Were you formerly employed in the office of the auditor of Polk county, Iowa.

A. Yes, sir.

Q. And in what capacity and for what length of time?

A. Deputy in charge of the revenue department for about seventeen years, not all that time in charge probably, about twelve or fifteen years in charge of it.

Q. During that time, Mr. Parker did you become familiar with the assessed values of real estate in this city?

A. That department has charge generally of the assessors of the county while we did not particularize at all or specialize in any way we had the overseeing of the work.

Q. You prepared the tax lists for the county treasurer through your office.

A. Yes, personally.

Q. And using the valuation returned by the assessor for the purpose of making up these lists?

A. As equalized, yes.

3038 Q. And from that general experience did you in a general way become familiar with the assessed valuation of the real estate?

A. Yes, sir.

Q. And you have been the city assessor for the past three years or jore?

A. Yes, sir.

Q. And during that time have been called upon to make valuation of real estate for the purpose of taxation in the city of Des Moines?

A. Yes, sir.

Q. As assessor of the city of Des Moines, Mr. Parker, have you assessed the real estate in the vicinity of the manufacturing plant of the Des Moines Gas Company?

A. Yes, sir.

Q. And do you recall the years in which you made such an assessment?

A. 1909 and 1911.

Q. So that you have made two assessments on that property and the property in the immediate vicinity?

A. Yes, sir.

Q. You have prepared and produced a plat which the reporter has marked defendant's exhibit No. 29 and I wish you would tell the Master what that plat purports to represent and from what source the information which it purports to give was secured?

A. It shows the assessed value of property from the alley north of Locust street to Raccoon street on the east side and from the river to the west line of Fifth street.

Q. And when was the assessment made from which these figures were taken?

A. 1911.

3039 Q. Does the plat defendant's exhibit No. 29 show the location of the real estate of the Des Moines Gas Company?

A. It does, yes, sir.

Q. And the amount at which it is assessed or was assessed the year 1911?

A. Including all property owned and taxable in the city, yes.

Q. And are the figures shown upon that plat, do they represent the value of the real estate exclusive of the buildings or improvements or do the figures represent the valuation as found by you for the purpose of taxation of the property including buildings and improvements?

A. They include buildings, improvements and all property of the company, mains.

Q. Take the property immediately north of the manufacturing

plant of the Des Moines Gas Company being the property abutting east Court Avenue from First street up to the point indicated by you as shown on the plat and tell the Master the range of prices for valuation as shown by the plat?

Objected to as immaterial, incompetent, the valuation of property for the purpose of taxation is not competent or material on an inquiry such as is here presented nor is such a valuation of other property than that involved in the controversy material.

A. They seem to run from \$2,200 upward per lot of 44 feet. This would include improvements.

Q. Including improvements?

A. Yes, sir.

Q. Now in order to get it on the record does the plat, defendant's Exhibit 29, show the block and the number of the block and addition in which the property is situated?

3040 Q. It does show the block number, lot number and dimensions in feet of the lot or tract of land assessed.

Q. Now take the property, and you may describe it as shown by the plat lying immediately east of the gas company's property and tell the Master what the valuation of the property is as shown on this plat?

Same objection.

A. Immediately across the street east the lowest valuation I see is \$1,500. There is a little increase until you get to Fourth street and there it decreases.

Q. \$1,500 what do you mean by that?

Same objection.

A. 66 foot lot.

Q. 66 foot frontage on what street?

Same objection.

A. On Second street.

Q. What is the depth of the lot?

Same objection.

A. 132 feet.

Q. Do you have in mind the particular property which that plat describes?

Same objection.

A. I do not, no sir.

Q. You don't know the character of the improvements at this time on the lot?

Same objection.

A. I do not, no sir.

Q. They run from \$1,500 a lot up to how much?

Same objection.

A. \$2,000, well there is the buildings, that one up to \$7,500 a lot.

3041 Q. Where is that valued at \$7,500?

Same objection.

A. Northwest corner of Market and east Third, \$15,000 on 132 feet square.

Q. The northwest corner of Third and Market and do you know what that property is or whose property it is?

A. No, I don't recall what it is.

Q. Can you take the map which is complainant's Exhibit No. 6 in connection with your plat, defendant's exhibit 29, and tell us what property is located at the northwest corner of Third and Market street.

A. Nothing seems to be marked here. I don't recall that that is.

Q. I will ask you this Mr. Parker, if the plat, defendant's exhibit No. 29 correctly shows the property adjacent to that of the Des Moines Gas Company and correctly shows the numbers of the lots and the blocks and correctly shows the valuations placed upon the respective properties for the purpose of taxation as made up by you for the year 1911 as city assessor?

Same objection.

A. It does, yes.

Q. When was that plat prepared by you Mr. Parker?

A. Some three or four weeks ago. Just the week that this hearing was adjourned the last time.

COURT: This don't show the valuation of these lots separately?

A. Not unless they were assessed separately.

COURT: It shows the valuation of the whole block?

A. I don't think there is but one block there, that belongs to the gas company and that includes all property in the city, made one assessment for the entire property in the city, did not attempt to distribute it.

3042 Q. Does this show the gas company's property.

A. It does. I think it is Block F is it not. The valuations are placed on block C I think and all other property was marked assessed with Block C.

Q. That is to say now you did not take up the property in Block M or Block T Scott & Dean's Addition and show that separately upon this plat?

A. No, sir. Well no separate valuation was placed on it, it was all lumped.

Q. Just where on the plat Exhibit No. 29 is the gas company's property shown?

A. You mean their assessment?

Q. Yes.

A. Their assessment is shown on Block C Scott & Dean's Addition.

Q. And how much is it shown to be?

Same objection.

A. \$1,350,000.

Q. And that includes all of the real estate owned by the Des Moines Gas Company?

Same objection.

A. Yes, sir; fixtures and mains.

Q. Manufacturing plant?

Same objection.

A. Yes, sir.

Q. Manufacturing plant and everything of that kind?

Same objection.

A. All their property yes.

Q. I notice some property lying immediately east of Block C indicated as being in Block K lots 5, 6, 7, 8, 1 and 2, seem to have the valuation placed on each lot separately. Do you know whether that includes the gas company's property in whole or in part?

Same objection.

A. I don't know what property the gas company owns. The gas company furnished me a list of their property and no assessment was extended on any of that property but was extended against Block C as a single piece of property including all the others. I could not answer it because I don't know their itemized list of property, haven't looked at it since.

Q. Take the property in Block 17, lots 1 to 10, both inclusive, I notice on east Vine street the figures 150. Does that indicate the frontage on Vine street?

A. Yes, sir.

Q. And the figures on the plat on Lot 1 of 56 feet does that represent the frontage on Fourth street?

A. It does, yes. The ink figures represents dimensions and lot numbers. The lead pencil figures represent values.

Q. In Block 17 to which I call your attention there are a number of figures in ink 6400 for instance. Lot 2, and they represent the valuation of the lot for the purpose of taxation?

A. Well I will have to correct my testimony. I thought I had the valuation all down in lead pencil but the valuations are there in ink if written across the face of the lot. The ink figures on either margin of the lot are the frontage.

Q. So that this plat, Mr. Parker shows the lot and block, the dimensions of the lot or lots and the valuation.

Same objection.

A. Yes, sir.

Q. That was placed on the lot for the purpose of taxation?

Same objection.

A. Yes, sir.

Q. I wish you would give these boundaries embraced within
3044 this district by streets so we can have it here on record?

A. The map covers the territory from the alley north of Locust street to Raccoon on the south and then for a little ways a couple of blocks further and from the river eastward I think to Fifth street.

Q. You say that was a true correct representation of the district and description of the lots, dimensions of the lost and the respective valuations?

Same objection.

A. Yes, sir.

Q. Made against the same?

Same objection.

A. Yes, sir.

Here the further hearing was adjourned until 9:30 o'clock tomorrow morning.

3045 Tuesday Forenoon Session.

SEPTEMBER 12, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of Defendants resumed as follows:

JAMES PARKER, Continuing his direct examination, examined by Mr. Brennan, testified:

Q. Now Mr. Parker, in using the figures which you have used on Defendant's Exhibit 29 to indicate the values of the properties shown on this plat for the purposes of taxation, I will ask you from what source you secured the data or information which appears upon the plat?

A. Well, those assessments were made by a deputy and we worked all together and attempted to get the valuation of the property by any source we can obtain as to real estate values, by inquiring among real estate men as to sales and mortgaging and offers of sales.

Q. What I wanted to know more particularly, Mr. Parker, was if the figures which are shown upon the respective lots indicated on this plat, Exhibit 29, are compared with the figures which appear on the original assessment rolls?

A. Yes, sir; they are copied from the assessment roll of 1911.

Q. And did you personally check them up to ascertain if they were correct?

A. Yes, sir. I did. I made the figures and read them back.

Q. I understand you to state that the valuation which is placed upon the property of the Des Moines Gas Company, as shown upon this Exhibit 29, inclusive the real estate, the buildings and all property, both real and personal, of the Des Moines Gas Company situated in the city of Des Moines, Iowa?

3046 A. It does, yes, sir.

Q. Does that include the Valley Junction property?

A. It does not. It includes the mains to Valley Junction, but not property outside of the limits.

Q. So that the valuation extends over the distribution system as well as over the other property?

A. Yes, sir; it does.

Defendants now offer in evidence Exhibit 29, identified by the witness.

Objected to on part of complainant as being immaterial and incompetent and does not tend to establish the value of the property which would be the basis of the calculations of the return.

The MASTER: Will you tell me under what section you made this valuation?

A. There is a special number—I can't tell you the number just now.

Judge CARR: It is 1323; and there is 1343 that has special provisions as to gas companies.

Mr. BRENNAN: We had better have the bailiff bring in a Code, so that there will not be any misunderstanding.

Cross examination by W. L. READ, Esq.:

Q. What is your age, Mr. Parker?

A. Forty-two.

Q. You have been assessor of the city of Des Moines for how many years?

A. Three years.

Q. You were in the auditor's office of the county prior to 3047 that?

A. Yes, sir.

Q. For how many years?

A. About sixteen or seventeen years.

Q. What had you been prior to going into the auditor's office, what had been your occupation?

A. I had been book keeper for a short time.

Q. Had that been your calling up to that time?

A. Yes, sir.

Q. You had never dealt in real estate or given any special attention to the values of real estate?

A. Not as a business, no sir.

Q. In the auditor's office, what were your particular duties?

A. In the revenue department, making up the tax lists.

Q. That involves the compilation of the tax list from the assessment rolls returned by the assessor?

A. Yes, sir; and since the Code of 1907 the auditor's office has had a sort of an advisory capacity over the assessors of the county.

Q. Since you have been assessor of the city of Des Moines you have had a number of deputies under you?

A. Yes, sir.

Q. How many?

A. About twenty making assessments.

Q. Those deputies are appointed by whom?

A. By myself.

Q. Has it been your practice to appoint men who have engaged in real estate transactions and with special knowledge of that subject?

A. We try to get men with special knowledge of the subjects of assessing and valuations, yes sir, but did not pick out real
3048 estate men.

Q. Will you name some of the deputies?

A. Mr. Higgins, Mr. Voodry, Mr. Campbell, Mr. Montis——

Q. That will do for the present. Now, Mr. Higgins is in what occupation?

A. Gardner and farmer, living in the city.

Q. Mr. Montis is engaged in what occupation?

A. He is an insurance man, an appraiser.

Q. What do you mean by that term, appraiser?

A. Appraiser for the losses.

Q. Mr. Campbell is engaged in what occupation?

A. Mr. Campbell is a retired man; I don't know what his original occupation was.

Q. The other one, Mr. Voodry, what is he?

A. He is a farmer.

Q. Are the four typical of the list of twenty men?

A. Yes, sir; there might be better men I would like to add if you are asking for occupation. All of these men have served for from five to fifteen years as assessor; I do not give that as the occupation as that is not a continuous job.

Q. There has been in the city of Des Moines rather a marked advance in real estate values, inside business property?

A. Yes, sir.

Q. It has been difficult, hasn't it, to have your valuations for taxation keep pace with the real advance or commercial advance in the values of property?

A. It has, yes sir, when it comes to the prices paid in certain districts.

Q. In assessment for taxation, the values for taxation have dragged behind the real advance, haven't you, you have not been able
3049 to have your valuations for assessments coincide with the rapid advance in properties, have you?

A. We do not aim to make our assessments up to the value, the selling price of property where this element of speculation enters into it.

Q. Well, regardless of that, you haven't been able to advance your valuations for taxation purposes and keep pace relatively with the advance in values, have you?

A. Well, it is rather difficult for me to know how to answer that, except in the way I did. Our valuations in the residence. Our valuations in the residence district we think are up to the selling price; but in this business district the price at which properties sell we do not reach in taxation.

Q. The thought I had in mind was this: that the assessments have been made every two years; you started out years and years ago

with a low valuation, because property values have been low in Des Moines, and you started out at a time when the valuation for assessment was only a percentage of the real value, didn't you?

A. In the past, years ago, yes sir.

Q. It has been difficult, hasn't it, to advance the valuation for taxation to the point of the actual value owing to the practice in the past?

A. No, there is no difficulty in bringing it up if we could ascertain or determine that the selling price of today is the actual real value of the property, not considering that element looking towards the future growth of the city. Of course our assessment made in 1911 would be two years behind under any circumstances; we could jerk it up.

Q. You could do it, but are you able to practically, do you succeed in doing that?

3050 A. We succeed to the extent we intend it.

Q. You only intend to express a part of the advance that has occurred, or may have occurred within that two years or in prior years?

A. Yes, sir; as I stated, we aim to be as far under as the element of reproduction or future growth may enter into the real estate.

Q. So that it is true, then, in the main, that your valuations for taxation do not reach the level of the real or commercial value in inside business property at least?

A. In the business property, yes sir, that would be true, and would be true in a different ratio in different places. I might illustrate that with Tenth and Locust. I estimate our assessments are about 60 or 70 per cent of the today selling price, while at Second and Locust—Second and Walnut, I should say—they are within 85 or 95, the element of speculation being much greater in some places than in others.

Q. For instance, what is the valuation for taxation upon the Fleming Block?

A. The valuation fixed by me was \$430,000, and it was reduced by the board to \$384,000.

Q. Now does that include both improvements and real estate?

A. Both, yes, sir.

Q. Are they separated?

A. They are, yes sir.

Q. What is the real estate?

A. Well, it is a little hard—the real estate is \$140,000.

Q. What frontage is there there?

A. 66 feet.

Q. That property is located on the corner of Walnut and Sixth Avenue?

A. Yes, sir.

3051 Q. The southeast corner?

A. The southwest corner.

Q. The improvements then according to that would be valued at \$244,000?

A. What did I say the real estate was?

Q. \$140,000.

A. Well it was \$138,000.

Q. This valuation was placed by you—you valued the property in the first place?

A. I valued the property at \$430,000 and it was reduced; my valuation of the building was \$290,000.

Q. We do not care about that now. Did you know what the improvements cost?

A. I have heard it variously estimated, yes sir.

Q. Have they been by persons who knew?

A. I never can tell who knows.

Q. How nearly does the figure \$240,000 coincide with the cost of the building?

A. It is my information from what I have heard in business circles that the building cost \$350,000 and a little upward, I have heard.

Q. The building is a new one, erected within a few years?

A. Yes, sir.

Q. And is a very substantial one?

A. Yes, sir.

Q. Of fire-proof construction?

A. Yes, sir.

Q. Now, the 66 feet of real estate, the valuation of \$140,000 is about \$2,100 per front foot; do you think that coincides with the commercial or market value?

A. Not taking into consideration the selling speculation.

3052 Q. This valuation is the one made in 1911?

A. Yes, sir.

Q. The property is worth considerable more than \$140,000 the ground would be at this time?

A. It would sell for more, yes.

Q. Sell for \$3,000 a front foot, or \$3,500?

A. I wouldn't put it \$3,500; I would say if the ground was clear it would sell for \$3,000.

Q. What is the valuation for 1911 of the Citizens Bank Building on the northeast corner?

Objected to on the part of defendants as irrelevant, immaterial and not cross examination.

A. The ground and building, \$210,000.

Q. How much for the building and how much for the ground?

A. The ground \$90,000; and the building \$120,000.

Q. What frontage is there?

A. 44 feet on Walnut street.

Q. That valuation upon real estate is about \$2,000 a front foot?

A. Yes, sir; \$2,000.

Q. The real present commercial value would be as much as \$3,000?

A. It would, yes sir.

Q. Do you know what the building cost?

A. I have been told—I was trying to think—I was thinking it was somewhere in the neighborhood of \$130,000 to \$140,000; I have forgotten.

Q. At any rate you are satisfied these figures do not coincide with the cost of the buildings?

A. With the Fleming, yes sir; I would not say so with the Citizens National Bank Building, with the exception of \$10,000 or \$15,000.

Q. What do you mean by that, Mr. Parker?

3053 A. The valuation we placed on the Fleming Building is not its cost, but the other one I think is about its cost.

Q. About \$120,000?

A. About \$120,000; I think so.

Q. Do you know where the Pritchard property is, on the corner of Eighth and Walnut?

A. Yes, sir.

Q. And the Foster property?

A. Yes, sir.

Q. Do you recall what the valuation for taxation has been upon these properties?

The defendants interpose the same objection last above made, and the further objection that the property inquired about on cross-examination is in an entirely different section of the city from that inquired about on the examination in chief, and therefore is incompetent.

A. I brought my book; I can tell you, it is \$75,000.

Q. Each?

A. No, the Pritchard corner is \$75,000.

Q. And the other corner?

A. \$80,000.

Q. Referring your attention to the Foster property—you know that has been recently leased for a term of years?

A. I know it has, yes sir.

Q. Ninety-nine years is your understanding, Mr. Parker?

A. I have not the terms of the lease yet.

Q. And has been leased on a valuation of \$200,000?

A. The Foster property?

Q. Yes, sir.

A. I don't know.

3054 Mr. BRENNAN: Let the record show that these objections are made to all this line of cross-examination, because it relates to an entirely different section of the city than the property in question.

The MASTER: This objection may apply to all the cross-examination.

Q. You also know the Pritchard property has been lately leased for a term of ninety-nine years or some long period on the basis of a \$200,000 valuation.

A. I do not know, because we pay no attention to those leases at all until we run down the parties and we have not done that since we closed up our work this year.

Q. Now the valuations you have given in response to the inquiries are fairly typical of the valuations on Walnut Street?

A. They are in that section, from Fifth street to Tenth street, yes sir.

Q. How is it from Fifth Street east?

A. They are much closer to the real selling price of the property.

Q. And there you think they reached what per cent of the real selling value?

A. Oh, they will reach 85 to 90 per cent on Walnut Street, that is, passing Fourth.

Q. That is of course your judgment?

A. Yes, sir.

Q. On the east side, take the Capital City Bank Building, what is the assessment upon that?

A. \$130,000.

Q. How nearly does that coincide with the actual selling price, commercial value?

A. I have never heard any figures except those my own 3055 men computed as to the buildings, so I could not reply as to the building itself. The ground value, in the way I know men are carrying the property is perhaps in the neighborhood of 75 or 80 per cent of the value of the vacant ground.

Q. This figure you are giving is the value of the ground and building?

A. Yes, sir.

Q. \$130,000.

A. Yes, sir.

Q. And the valuation as placed on the building, what is that?

A. I neglected to take that; that was in another district.

Q. The property just diagonally across the street, the Coberger property, which Mr. Teachout has purchased, what is the valuation of that, can you tell?

A. I can not tell you off-hand, no sir.

Q. Can you recall approximately?

A. Why it is a little over a hundred thousand dollars, I don't remember just what. This is simply a record for the west side.

Q. Just precisely what is shown by that Exhibit 29; what do you purport to show?

A. The blocks, the lots and the streets.

Q. With respect to valuation I mean?

A. I show here the valuation as placed by the assessor for assessing purposes for 1911.

Q. That valuation was made when?

A. Some time in January, February or March of this year.

Q. The value of the ground and improvements are not separated on that?

A. Not on this, no sir.

Q. That valuation was made not by you?

A. Why the valuation was not made by me, but was passed on by me after it was made, lot by lot.

3056 Q. Was that for comparative purposes or for valuation purposes?

A. More to see that the valuations corresponded with my ideas. I check up every real estate valuation in the city that way.

Q. Will you turn to the property on Court Avenue, on the north-east corner of First and Court Avenue, the Bailor property, used to be, and tell us what the valuation placed upon that is?

A. \$13,000.

Q. How much frontage is there?

A. 132 feet square.

Q. That is the property lately purchase- by the Bently-Olmsted Company?

A. I do not believe they purchased it; the Ills own it.

Q. That is the property that Lorenz Ill Company is building upon and renting to the Bently-Olmsted Company?

A. Yes, sir.

Q. Do you know upon what valuation?

A. I don't know. I know what valuation they paid for it. I don't know the terms of their lease.

Q. Don't you know that it is upon a valuation of some \$220 a front foot?

A. I do not; all I know is the purchase price of the Ill property.

Q. The property across the street, the McDonald property, the Des Moines Manufacturing and Supply Company, what is the valuation upon that?

A. You mean the whole half block?

Q. Yes.

A. \$28,800.

Q. That includes the improvements as well?

A. Yes, sir; but not the machinery or fixtures—I mean the machinery or merchandise.

Q. In short, the figures and valuations placed upon the 3057 property shown by Exhibit 29 are such as were placed by the deputy making the list of the property, but examined by you afterwards and approved by you?

A. Yes, sir.

Q. How much of an advance, if any, is made over the previous assessment on those properties?

A. Do you mean individual properties?

Q. As shown by Exhibit 29, has the assessment of them been increased?

A. In some places, for instance on Locust street there was an increase on the neighborhood of 25 per cent. Walnut Street was unchanged because of the closing of the bridge. Court Avenue was perhaps not to exceed a ten per cent raise.

Q. How about Vine Street?

A. From Vine Street on south there was no change.

Q. You say Vine was not changed on the south?

A. No, sir.

Q. Is that true of the whole extent of Vine Street?

A. Oh, yes.

Q. How about Market Street?

A. No change.

Q. There has been a marked advance of properties on East Locust Street since the opening of the bridge?

A. There has been up to Sixth Street, yes sir.

Q. Up to the location of the civic center?

A. Yes.

Q. That would affect Walnut Street also, but you did not make any advance because of the temporary closing of the Walnut Street traffic?

A. Yes, sir.

Q. You have made a slight advance on Court Avenue?

3058 A. Yes, sir.

Q. In all instances or in some only?

A. Well the advance would be on the real estate.

Q. Not on the buildings?

A. No, we do not advance the buildings.

Q. Well, these valuations shown by Exhibit 29 are aimed to be conservative, low?

A. I wouldn't say low, no sir, but they are aimed to be conservative.

Q. They do not probably express the present actual selling value?

A. They do not in any place where there is a demand for property as a business property, they do not represent the present selling value.

Q. By business property you mean for manufacturing or storage or any such uses as that?

A. Yes, sir; where there is a good demand for it.

Q. Do you know what the basis of valuation is of the properties shown by Exhibit 29—I mean how the assessor reached the conclusion that the figures placed by him were correct?

A. Well, we have a system in the office of collecting and tabulating all values, and that is furnished to the field men and they spend in these down town districts—for instance, this assessment is all made by one man; he spends some days in talking with men on the east side especially, and getting such data as he can in addition to what we furnish.

Q. What data do you furnish?

A. All of the sales prices and mortgaging and so on that we have accumulated up to date.

Q. You do not furnish him with any holding values of prices, do you?

A. No sir, we do not; he is expected to get that in the talk with the real estate men.

3059 Q. Who was the man that made the valuations?

A. Mr. Higgins.

Q. That is the gardener?

A. Yes, sir.

Q. Where does he live?

A. About two miles and a half southeast.

Q. On the farm?

A. Yes, sir.

Q. That is, his principal occupation is gardening and farming

and he spends simply such time as may be required in acting as deputy?

A. Well he was placed in charge by me of that district when I first became assessor and he had been assessor I think fourteen years prior.

Q. In the country districts?

A. In that way he keeps track during the summer time of that district, knowing he is going to assess there, although he is not paid in any way.

Q. Do you know whether Mr. Higgins knew whether there has been a very marked advance in holding values or offering values?

A. Why, I know Higgins knows that property and I am quite positive that he knows almost all of the holding values. I know he knew many of them, because we had talked it over. After he has got what information he can then we assess by the front foot and before he begins with the clerical work of appraising, we talk it over ourselves so that I know what information he is acting on, and I also know the assessments before they go down as to the front foot.

Q. Of course, you don't know what information Mr. Higgins had in fact?

A. If he did not tell me all of it, of course I did not know.

3060 Q. Your experience as an assessor does not justify you in the conclusion that the owner of property puts any extravagant value on it?

A. I could not quite agree with you, because the man who holds and wants to hold has a strong incentive of giving a valuation as high as possible and is just as apt to do so as the man who wishes to sell.

Q. That is your conclusion?

A. Yes, sir.

Q. For instance, J. K. Gilchrest Company own property in the neighborhood of Vine Street?

A. Yes, sir.

Q. Have you had any experience with the Gilchrest people in regard to their estimate of the value over there?

A. No, sir; I have not over there.

Q. Do you know Gilchrest?

A. Which Gilchrest?

Q. J. K.

A. Oh yes—no I don't know J. K. I know Charles, the lumberman.

Q. Well, people are not as a rule disposed to increase the amount of taxes they pay; that is not your experience, is it?

A. No sir. I thought of that afterwards—

Q. So that if a man has property that he does not want to sell and it is not in the market and he does not expect to sell it, do you think such a man would be apt to encourage your deputy to place a large valuation upon his property?

A. No sir. I thought of that point afterwards. If you meant expressing a valuation to us of their holdings, that would not be

so, because the valuation they express to us is exactly the opposite.

3061 Q. So that if your deputy would make inquiries of the owners he would be apt to be met with a very low valuation, wouldn't he?

A. Well, I wouldn't admit to that either, because more than likely they would just simply not talk at all.

Q. Well, your conclusion is he would either remain silent or express a low valuation?

A. When he is talking to the assessor at assessing time. I find that outside of the term of assessment people talk to the assessor very freely in regard to valuations.

Q. About other people's property?

A. No, in regard to theirs too.

Q. Now, did Mr. Higgins have any special qualification to determine the value of such a property as the Gas Company, consisting as it does—

A. I valued the Gas Company myself.

Q. Have you any special qualification?

A. No sir, I wouldn't say special qualification.

Q. What qualifications have you, whether special or general?

A. Well, I have known the claims of the Gas Company for several years past as to the value of their property, and I have examined the government reports as to the valuations of that class of property, as collected and classified in their reports, and I have had the benefit of an immense amount of volunteer information.

Q. No doubt about that. That has been persuasive too, I suppose?

A. No, I can't say that it has, because it was generally high.

Q. Mr. Parker, there is some relation between what a thing will cost to reproduce and value, isn't there?

A. Oh, yes sir.

Q. Necessarily so?

3062 A. Necessarily.

Q. What do you know as to what it would cost to reproduce the distribution system of the Gas Company, its mains, services, meters etc.?

A. So far as technical knowledge is concerned, I have none at all.

Q. What knowledge or information have you or did you have with respect to what it would cost to reproduce the plant, the machinery and appliances of the Gas Company?

A. Nothing other than the information that I have had directly or indirectly from the Gas Company itself in past years.

Q. For instance, what would it cost to reproduce the large holder over there?

A. I haven't any idea. I might make a guess at it, because Bi Keffer told me what it cost; I don't recall it now.

Q. So aside from the real estate of the Gas Company of which you may be supposed to have some knowledge concerning its value, you had no knowledge of what it would cost to reproduce or replace?

A. No, sir; not from a technical standpoint; I am not an engineer in any way.

Q. How, then, did you proceed in making this valuation which you have made upon the gas property?

A. Well, it was just the outcome of my best opinion.

Q. Under what sections of the code did you make this valuation?

A. Section 1323 of course was one of them; that is the regular corporation statute, that they should make certain reports, and section 1343 would be the other one.

Q. So sections 1323 and 1343 were the ones you proceeded under?

A. Those were the ones, yes sir. Of course there is a further section relating to the real estate of the company, and there are several sections that might cross—for instance away back 3063 is the section assessing real estate, and then section 1343 requires us to add certain things to the real estate; that is one of the faults we have with the revenue law.

Q. Will you take Exhibit 29 and turn to the gas property upon which you have placed the figures indicating the assessment against the company; what are the figures?

A. \$1,350,000. actual value.

Q. What does that include?

A. That includes all the real estate and personal property, machinery, fixtures, buildings, mains, and in fact all the property of the Gas Company assessable in the city.

Q. That is assessed against what?

A. Against the Gas Company and their real estate in Block C of Scott & Dean's Addition.

Q. Under what section of the code did you place that assessment against the real estate?

A. Well, 1343 would come the nearest to it, which requires a certain itemized method of assessment which it seems almost impossible to follow and for that reason, with the consent of the companies in this town we lumped the valuation.

Q. Turning to section 1343, the latter part of it, I wish you would read. You have in mind now section 1323?

A. Yes, sir.

Q. I want to inquire whether or not you are not required to make the assessment against the capital stock?

A. We are in case the capital stock has value in excess of the assessment we place on them as a real estate assessment.

Q. And that is because the real estate is to be deducted from the value of the company's property?

A. Yes, sir.

3064 Q. In this case you did not find any valuation in excess, so you did not deduct it in making the assessment?

A. Yes, sir.

Q. You had some information, as you indicated a moment ago, from the company; the company being a corporation is required to make a report each year, and the company made such report for 1909 1910 and 1911?

A. It did, yes sir.

Q. Have you those reports with you?

A. I have not, no sir. They are here somewhere as an exhibit.

Q. Are those documents present, does anyone know?

Mr. BRENNAN: Here is Defendants' Exhibit No. 1, Mr. Read.

Mr. READ: I asked for 1909, 1910 and 1911.

Q. Recurring for a moment to the assessment, you called the whole thing real estate, did you?

A. Yes, sir.

Q. The buildings, the machinery, the mains, services, meters and the stock and fixtures in the main office building?

A. Merchandise stock, yes sir.

Q. And the cash, you called it all real estate?

A. Yes, sir.

Q. Do you recall what valuation the report made by the company for 1909 placed upon its property?

A. I couldn't say as to 1909, no sir.

Q. Where are those reports, Mr. Parker?

A. They are in the auditor's office. Two of those would be in my office; the ones for 1910 and 1911 would be in my office.

The MASTER: Would there be, excepting real estate, any assessment for 1910?

A. Not in 1910.

The MASTER: The real estate is assessed in odd years?

3065 A. Yes, sir.

Q. Nevertheless, the Company makes a report?

A. They make that report under section 1323 every year. I said there was no assessment in 1908; I think there was an assessment on corporation stock in 1908.

Q. The real estate is to be taxed every two years?

A. Yes, sir.

Q. Now in the alternate years, when the levy is not made against the real estate, against what is it made?

A. The personal property, and the levy is extended against the prior assessment on real estate and the new assessment on the personal.

Q. Is that extended against the corporation stock?

A. No, sir; that is a personal assessment.

The MASTER: You have those reports in your office?

A. Yes sir, for the last two years.

The MASTER: Did the action of the state board of review affect the value of real estate in Des Moines?

A. No, sir; not town lots under which they are assessed.

Q. Do you recall approximately the return of the Company what valuation the Company return placed upon its property for the year 1909?

A. I think it is \$1,250,000.

Q. Wasn't it \$2,250,000?

A. I think it was somewhere in the neighborhood of \$2,000,000.

Q. For the year 1909, do you recall whether the valuation placed by the Company's return upon its property was \$2,400,000?

A. Well, it is purely a guess; I wouldn't say it was not.

Q. You must have some general recollection?

A. No, I have not.

Q. What was this year's valuation as shown by the Company's return to the assessor?

A. In excess of \$3,000,000.

Q. \$3,300,000?

A. Probably; it may be \$3,300,000.

Q. I wish you would send to your office and get those returns, if you can?

A. I could only go myself.

Q. I will ask you to go presently. The Company's return showed a valuation in the year 1911 upwards of \$3,000,000?

A. Over \$3,000,000 as I recall it.

Q. And you placed the valuation of \$1,350,000?

A. Yes, sir.

Q. Why didn't you accept the Company's valuation?

A. Well, because I knew that up to this controversy the Gas Company representatives protested most strongly to the assessment of \$1,000,000 and claimed their property was not worth that figure, and I felt at that time, and I had seen no evidence of any such increase in their investments, and for that reason I did not accept their figures in any sense.

Q. You made inquiries, or attempted to ascertain what additions or betterments had been placed by the Company for its property?

A. Yes, sir.

Q. You had?

A. Yes, sir.

Q. Well, now, take your statement in the year 1910, the Company's return showed a valuation of \$2,400,000, and assuming that now to be accurate, to be verified later, and the previous year the return showed a valuation of \$2,250,000; so that it is not exactly accurate to state that the Company had protested its valuation?

3067 A. I am talking prior to the time I took the office.

Q. But since your incumbency of the office the Company had placed three valuations by its return, for the years 1909, 1910 and 1911, and for the year- 1909 and 1910 the valuation placed by the company had been in excess of \$2,000,000?

A. I think that is so, yes sir.

Q. Did you accept the Company's return for those two years and place a valuation that coincided with the Company's valuation?

A. I did not, no sir.

Q. Why did you not?

A. Because I did not consider the plant worth that figure.

Q. Did you have some other ulterior purpose in your mind?

A. No, sir, none at all.

Q. Did you with respect to the Company's return of 1911 have any conversation or conference with any person or persons?

A. No, sir; none at all, excepting representatives of the company.

Q. Did any person or persons aside from representatives of the Company make any suggestions or statements to you?

A. Why there was free volunteer information, yes sir.

Q. Who, what persons?

A. Well, I do recall Mr. Kasson and men like he.

Q. Mr. L. J. Kasson?

A. Yes, sir. There were unquestionable people talking about their own assessments, but I judge from your question you have reference to public officials; if you do, there is none ever spoke to me on the subject.

Q. You are an official of the city of Des Moines?

A. I am, yes sir.

Q. And as such you are supposed to consider it your duty to be alert in looking after the interests of the city?

A. I do, yes, sir.

3068 Q. You say that no other official of the city ever made any suggestion to you and that you never conferred with any other official of the city concerning the valuation placed by the company on its property?

A. I should say, I never talked to any one nor has any one ever talked to me. Well, now, I would correct that in this way; in the past few weeks I have had some talk with different parties.

Q. I mean prior to the placing of the valuation?

A. No, sir; I never received any communication, written or oral in any sense.

Q. You have talked though with people such as Mr. Kasson?

A. Well, the reverse; they talk with me; they come in and volunteer information.

Q. He, I dare say, urged upon you a low valuation?

A. I said Mr. Kasson; I know he has talked in regard to the Water Company; I don't know whether he talked about the Gas Company or not.

Q. You knew there was a controversy on between the city and the company?

A. Not at the time of the 1909 assessment.

Q. When did you make that?

A. Prior to March 1909.

Q. Prior to your 1911 assessment you did?

A. Oh, yes.

Q. You knew the question of the valuation placed on the Company's property was a material one?

A. By me, you mean?

Q. You knew that?

A. I knew that, yes sir.

Q. You knew that a high valuation would be detrimental to the interests of the city?

3069 A. Well, it is hard to answer that. If I may state this: it would probably better explain my position——

Q. Answer my question first.

A. I don't know what you mean by detrimental.

Q. Then answer the question in your own way.

A. In 1909 I was much concerned as to my valuation, and——

Q. Why?

A. We had had trouble continuously with all the companies and

no assessment prior to 1909 had stuck except in 1909, and that stuck simply because of the Des Moines Plan and certain things which I knew had occurred. I did not know whether the companies would any of them stand by my assessment. I had no idea what the council wanted—

Q. That could hardly be true with respect to the Gas Company because it had made a voluntary valuation in excess of \$2,000,000. and the question is why didn't you accept it in 1909?

A. Because I did not think it was correct.

Q. You know, of course, that the contract made in the nineties would expire December 31st, 1910?

A. I don't know that I knew it at that time; whether I had that knowledge at that time or not. In 1910 I did have that knowledge I know.

Q. Then why didn't you accept the company's valuation in 1910?

A. Because I considered my valuation high enough.

Q. A similar controversy was pending in 1909 between the city and the Water Company?

A. That I do not recall because I was in no way connected with it.

Q. You was assessor in 1909?

A. Yes, sir; but I was in no way connected with any controversy; I may have known it.

3070 Q. The matter was very much talked of in the newspapers?

A. I say I don't recall it.

Q. You do not now recall whether you had in mind at that time the fact of the Water Company controversy.

A. Yes, sir; I don't know that I remembered it at that time; I don't say I didn't, because I have no recollection.

Q. In the year 1909 the Company in its return and report to you as assessor placed a valuation of \$2,250,000 upon its property—we will assume that is correct—why didn't you accept that valuation and return as the assessed valuation of the company's property?

A. Well, I felt it my duty under the law to place my own value as I considered the property worth. I knew in 1907 Mr. Haines had protested the assessment of their company and claimed it was nowhere worth near the valuation placed on it.

Q. Of course, you were no assessor then?

A. No, sir; but I was in full consultation with the assessor or he with me. I assumed that his statement in 1907 was as nearly correct as his statement in 1909.

Q. You don't know what additions and betterments had been added to the property?

A. I thought I knew, yes, sir. I had some general knowledge, having covered the city and knowing of the mains that were put in, and I could see the tangible property on the east side; that there was no exterior display of investment; inside of the building it might have been completely changed for all I knew.

Q. Were you in conference with Mr. Kasson or such men of his ilk in 1906?

A. No, conference with anyone, excepting as I stated that it is

common for people to come in and talk over their assessments
3071 and compare it with somebody else's and unload information.

Q. I want to get at your state of mind, if I can——

A. I only mentioned him but have no recollection of anybody approaching me on the subject of this or any other Company and I have no recollection that he did.

Q. Now, for the year 1909 you were assessor?

A. Yes, sir.

Q. The law required the Gas Company as a corporation to make a valuation and return under oath to you as assessor?

A. No, sir; it did not. The law does not require the company to make any valuation of their property.

Q. The law requires a return to be made?

A. Of the items of real estate.

Q. For the year 1909 the Gas Company did as a matter of fact make a return of the items of its property and also placed a volunteered valuation upon its property?

A. They did, yes sir.

Q. You did not accept the valuation placed by the Gas Company on the property?

A. I did not, no sir.

Q. My particular inquiry to you is why you did not do so?

Objected to on part of defendants because it has been answered two or three times and it is simply taking up time to have him repeat his answer.

A. Because I did not believe it was a correct valuation.

Q. Now was there any other reason or motive or purpose on your part in not accepting the Company's valuation?

A. There was not; no sir.

Q. You suggested a moment ago as a reason that the Company
and all companies had protested their assessments; of course
3072 you knew that the Company by making this voluntary valuation had placed itself in a position where it could not protest, so that was not a reason in your mind at that time?

A. No; I have no recollection of that, but I can say that the Company would not protest any valuation of less than that.

Q. So that was not a reason why you rejected the Company's voluntary valuation?

A. Oh, no, I had no fear of a protest.

Q. For the year 1910 the Company also made its return required by law and placed a voluntary valuation upon its property but you did not accept that?

A. No, sir.

Q. For the same reason?

A. Yes, sir.

Q. No other motive or purpose or thought in your mind?

A. None at all, no sir.

Q. You say you didn't know or didn't remember that the company's contract with the city would expire December 31, 1910?

A. I unquestionably knew of it in 1910, yes sir.

Q. Didn't you have in mind the fact that that contract would expire and that there would be probably some regulatory ordinance passed by the city or some rate fixed; didn't you anticipate that?

A. I certainly knew it.

Q. Didn't you anticipate that?

A. The assessment was made with no reference to that. It is immaterial to me what valuation I place upon the company provided I get what I consider the actual value. I did have this in mind; that the object of the Company in placing that value was probably two-fold; first, that they would have a higher expense bill, and second, if that went through the council at their figures, regardless of my own opinion, that it would have a tendency to bind the council.

Q. So it was to counteract that result that you put that valuation on?

A. No, it was my own valuation.

Q. You say you had that in mind as a motive, or a motive on the part of the Company?

A. Yes, sir.

Q. And it was due to the Company's motive or purpose that you, among other things, scanned and scrutinized the Company's valuation and rejected it.

A. Why no. The fact that I had a suspicion as to why the Company made their report did not enter in any sense into my reason for fixing the valuation. Now I want to make myself clear. I may talk on the side a little, but permit me to illustrate it in this way: In 1909 the Electric Light Company controversy—

Q. I don't care to go to other companies. Now with respect to the return made by the Company in 1911, did not Mr. Haines on behalf of the Company state to you that the Company had had an inventory taken of its property?

A. He may have said so, yes sir.

Q. Did you examine that inventory?

A. I did not, no sir.

Q. Did you make any request to be allowed to examine it?

A. I did not.

Q. Is it not true that in 1910 in connection with the Company's return Mr. Haines made some statement concerning the question of betterments and additions or improvement of the property?

A. He may have, yes sir.

Q. Did you make any effort to ascertain what they were?

3074 A. I did not; not through their books no sir.

Q. Now suffice it to say that you, with no special qualification as to the cost or value of the Company's distribution system, of its machinery and appliances rejected the Company's valuation as voluntarily made and used your own estimate; that is true, isn't it?

Objected to on part of defendants as having been already answered.

A. Not exactly, no sir. I stated I had a knowledge of the claims of the Company prior to 1909. I had no technical knowledge with

reference to that matter. I knew of the claims of their property at that time.

Q. For instance, Mr. Parker, how many miles of mains did the Company have prior to 1909?

A. I don't now know. But in 1909 I asked Mr. Haines the number of miles that he did have. How many it was I don't recollect now, because I kept no track of it.

Q. Do you know what additions to its plant had been made in the intervening years?

A. Not so far as only I could see from the outside.

Q. What changes had been made according to your knowledge?

A. Very little, excepting keeping up around the place and erecting a tank on the further side of Fifth Street.

Q. These claims on the part of the Company that you say you had knowledge of were claims made in 1907?

A. And 1908.

Q. Your assumption is there had been no improvement or betterments to any extent made in the intervening years?

A. Well, of course there was \$350,000 or \$360,000 worth. These figures with a Gas Company are small, while with the individual they are large. I raised their assessment \$360,000 over 1907 to 1911.

Q. You made no raise in the meanwhile?

A. I made a raise in 1909 and 1911.

Q. How much?

A. \$360,000 in two assessments; just how it is divided I don't recall.

The MASTER: Did you take into consideration the income of the property?

A. Not an excessive income; we do if it is a small income. If a man works his plant at full capacity and makes a small income, it necessarily reduces the value of the property.

The MASTER: I mean the income of the property.

A. For instance, if this Company were making 20 per cent, I would not take it into consideration; but if they were making two or three per cent upon their investment, we would consider it.

The MASTER: You would not consider a high per cent, but you would a low?

A. Yes, sir; I mean to the same extent.

Q. I want you to bring in the report for 1909 and 1910 and 1911?

A. I thought they were here. I have copies of them anyhow.

Q. I want you to satisfy your own mind as to those figures?

A. I am satisfied they are about the figures as I remember them—\$2,000,000 and \$3,000,000 but I am willing to look it up. I have not seen those figures for years.

Redirect examination by Mr. BRENNAN:

Q. Now, Mr. Parker, you spoke something of some discrepancy made by you in your assessments between the Fleming Building and the Citizens Bank Building; I want you to clear that up on the record, if there were any reasons why you made any distinction or difference?

A. We always consider an improvement and the ability to utilize that improvement to its full extent. The Fleming Building we never have assessed at anywhere near the cost, because at no time has the Fleming Building been more than two-thirds occupied and if they cannot fill that building it is not worth what it cost, and we take those things into consideration. We make a canvass of the office blocks and ascertain the percentage of empties.

Q. You say at the time that assessment was made the Fleming Block was not fully occupied?

A. No, sir.

Q. What was the fact as to the Citizens National Bank Building?

A. It was practically full.

Q. So that explains any difference in the assessment?

A. That is the principle we pursue.

Q. As I understand you, in making this assessment against the Des Moines Gas Company, as shown upon Exhibit 29, you did not undertake to assess the Capital Stock of the Company?

A. Well, did undertake—that is, I had that in view, but there being in my opinion no valuation of the capital stock in excess of the assessment, I could make none.

Q. You did not proceed under section 1323 to arrive at the value of the capital stock without regard to the property which was back of that stock, as you do ordinarily under section 1323?

A. I did not attempt to value the stock technically, if I understand your question.

Q. There is a section, 1319, which applies to manufacturing corporations?

3077 A. Yes, sir.

Q. And the method pointed out in that section is practically what you followed in this, namely, to get at the value of the tangible property of the concern about to be assessed?

A. Yes, sir; that would be the plan.

Q. Now you have been asked why you rejected the statement made by the Gas Company in the years 1909 and 1911. I will ask you if you had the information with respect to the sworn statement by Mr. Haines as manager of the Des Moines Gas Company in the year 1908?

A. I knew of it, yes sir.

Q. And for the purpose of refreshing your recollection on that subject I call your attention to defendant's Exhibit No. 1 and ask you if when you came to make that assessment in the year 1909, you had in mind the information which that statement purports to give?

A. I did. I could say this in regard to these statements; these statements put down here were compulsory; it was not conceded by Mr. Haines that that figure was the valuation. They were placed there at the requirements of Mr. Schramm, known to myself, because of the difficulty Mr. Schramm had had in settling with the companies in prior years. He said that he will make a certain assessment or will agree on an assessment, and if they agreed on the assessment he took that assessment and laid it before the board and it was

always cut down at the request of the company. We looked around for some way to head that off, and the two of us devised a scheme of either making an absolutely arbitrary assessment on the company, or compel them to enter that valuation in this report and sign it up, the idea being if they put it in that report they would not be in a position to appeal from it. I know that it was placed there 3078 and Mr. Haines refused himself to sign it.

Q. Let me ask you if at any time prior to the year 1909 any controversy arose between the assessor and the Gas Company on account of the fact that the assessor was not placing a valuation high enough to suit the Gas Company, or did the controversy grow out of the fact of the assessor placing too high a valuation?

A. It always came out of that controversy and this was done to head that off.

Q. Was the company complaining that the assessment as it was about to be returned was too high?

A. Yes, sir; the company complained so.

Q. Then it was in 1908 that you had Mr. Haines make a sworn statement appearing in Defendants' Exhibit No. 1, so as to have them go upon record under oath as to the value of their property?

A. In 1907 is the one I have reference to; what occurred in 1908 I do not recall. The one that stuck was 1907, the one that passed by the board of review without question.

Q. Had the company in the past made it a practice to appear before the board of review?

A. Yes, sir; in spite of the fact that they had agreed with the assessor on his assessment.

Q. So that in 1909 and in 1911, if I understand you rightly, you undertook to assess the property of the Des Moines Gas Company on a basis which appealed to you as being fair and equitable?

A. Yes, sir.

Q. Taking into account the valuations placed upon other public utilities in this community?

A. Yes, sir. I would like to state this, that the assessor is 3079 continuously importuned to both raise and lower valuations and that the Company property would not be the only property that the people claimed was too low; so that the claim of the Company that their property was too low was not uncommon, excepting as to ownership.

Q. You were asked if you had assumed that the city council would pass a regulatory ordinance after the expiration of the contract. I presume it was fair to assume in view of their past conduct that some change would take place in view of this report which they made to you in 1909 and 1911?

A. That I stated was my opinion of their high valuation in 1910 and 1911. I do not have any recollection what I had in mind in 1909, other than the controversy I had been mixed up with in 1907.

Q. For how many years prior to the year 1909 had you been connected directly or indirectly with the revenue department of the county?

A. Sixteen or seventeen years.

Q. During these sixteen or seventeen years, had you been more or less familiar with the valuations returned by the assessor?

A. Yes, sir.

Q. Did ou confer with him in regard to these assessments?

A. I did in the later years; they conferred with me, especially the larger companies.

Q. Have you in mind any year prior to 1909 that the Des Moines Gas Company or the Capital City Gas Light Company ever appeared or made a statement to the assessor protesting that the assessment was too low?

A. In 1907, 1905 and 1903?

Question repeated.

A. No, sir; I never knew them to. I beg your pardon, I didn't notice the words too low.

3080 Q. Now, Mr. Read asked you something about Mr. Higgins, trying to give out the inference that instead of being an assessor he was engaged almost exclusively in farming. I will ask you if this is Mr. Elsie Higgins to whom you refer?

A. Yes, sir.

Q. For what length of time has he been employed by the county in making assessments of property in the city of Des Moines and elsewhere?

A. I think it will run from 13 to 15 years. He came in under French and served through Mr. Schramm and myself.

Q. And has his district been confined to the remote parts of the city or what we call the farming districts in the county?

A. No, sir; he has been considered one of the best men and has for many years been retained on down town assessments.

Q. Now you were asked concerning the property in the northeast corner of First and Walnut Streets, purchased by the Lawrence Ill Estate. Do you know at what price that property was purchased?

A. That is First and Court Avenue. Yes sir, about \$25,000.

Q. Do you know how much frontage there is on Court Avenue?

A. 132 feet.

Q. How much upon First Street?

A. 132 feet.

Q. Is there an alley in the rear?

A. There is an alley both north and east.

Q. It covers a quarter block?

A. Yes, sir.

Q. And was purchased for \$25,000?

A. Yes, sir, \$25,000 or \$28,000.

Q. Do you know what improvements, if any, were upon this quarter block at the time of the purchase?

3081 A. I don't recall particularly no sir.

Q. Do you recall that there was a brick building about two stories in height running back to the alley?

A. The corner I know was brick two stories high; I think they were all frames east of that.

Q. But there was a substantial brick building upon the premises at the time of the purchase?

A. Substantially in its size, yes.

Recross-examination by Mr. READ:

Q. Deputy assessors are paid two dollars a day?

A. Two fifty.

Q. As a matter of fact, there has been a constant claim for a good many years by some members of the public that the corporations were not assessed enough?

Objected to on part of defendants as irrelevant, immaterial and hearsay.

A. There has been up to recent years at least.

Q. Has that complaint abated any in recent years?

A. I think it has.

Q. Disappeared entirely?

A. No, sir.

Q. It is still claimed?

A. Yes, when you are talking about public remarks.

Q. You said that the Fleming Building was about only two thirds occupied?

A. That was last fall when we took our information on the subject.

Q. This assessment was made in the year 1911?

A. Yes, sir.

3082 Q. Of course somebody told you it was only two-thirds occupied?

A. The Fleming Brothers, together with the fact that we looked around. I sent a man out with the proprietor to try the doors.

Q. This was last fall?

A. Yes, along in November or December.

Q. This assessment for the year 1908 that you agreed to was practically an agreed valuation?

A. I did not make the 1908 assessment.

Q. You were talking about the one Mr. Brennan showed you the return of made by the Company?

A. I had reference especially to 1907.

Q. You don't know anything about the 1908 assessment?

A. I was under the impression there was a little corporation stock in that year.

Q. Your attention was called to Exhibit No. 1, which is the return of the Gas Company made in 1908. Now in answering Mr. Brennan's question, did you speak with reference to that assessment or some other year?

A. I am at a loss to know just what question he asked me.

Q. Did you speak in answering Mr. Brennan with reference to the assessment of the year 1908?

A. The 1907 assessment is clearly in my mind. The 1908, there was little or no controversy and therefore I haven't that so much in mind.

Q. You called attention to the fact that the return for that year was sworn to by Mr. Haines?

A. 1907 is the one I had reference to. There was no valuation in 1908; you were asking about a valuation made.

Q. I am asking about a return.

A. The one I had reference to not being signed by Mr. 3083 Haines was in 1907.

Q. That was signed by Mr. Keffer?

A. Yes, sir.

Q. That was practically an agreed valuation?

A. Yes, sir; it was agreed under protest.

Q. The Company still protesting it was assessed too high, but assenting to it?

A. Yes, sir.

Q. You said that one of the objects was to cut off the protesting of the company against the valuation, that was one thing to be accomplished by having it signed?

A. By having them sign an agreed statement.

Q. If you had been anxious about that, I inquire again why you did not accept the company's valuations for the years 1909, 1910 and 1911?

Objected to on part of defendants as having already been fully answered.

Q. That would cut off any protest?

A. I do not want to assess any man any more than I think he is worth: I can not do it under my oath.

The MASTER: You said these manufacturers were assessed from 60 to 70 per cent of the selling value?

A. From 60 to 70 and 85 to 90—not necessarily manufacturing, more the commercial center.

The MASTER: That would make the selling price of this property 60 per cent of \$2,000,000?

A. We are speaking of bare real estate, not commercial enterprises at all.

Redirect examination by Mr. BRENNAN:

3084 Q. In other words, you tried to eliminate the factor of speculation with respect to real estate being bought and sold?

A. Yes, sir.

Q. I call your attention to Defendants' Exhibit No. 1, which purports to be a statement of the Des Moines Gas Company signed by W. B. Keffer, secretary, on the 15th day of February, 1908, and call your attention to the affidavit of Jansen Haines, Manager, executed on the 14th day of March, 1908, and I will ask you if that is the controversy to which you refer?

A. No, sir; it is the report prior to this, 1907. There is no assessment made in 1908 on their property unless they had a new building or new construction. But there was one year in which the assessor to make a raise assessed them on the corporation stock and I was

thinking that was 1908; but I may be mistaken. The one that I said was not signed, as I recall it by Mr. Haines, was the 1907 report, the one in which the controversy of the valuation took place.

Q. In 1907 you requested, or the assessor requested of Mr. Haines that he make a statement similar to that shown in Exhibit 1 which he refused to make?

A. He did not refuse to make it; he did and he did not. He did not want to make it but his assistant was permitted to make it, and we had the verbal statement of Mr. Haines it would go.

Q. That was in 1907?

A. Yes, sir.

Recross-examination by Mr. READ:

Q. Referring to your statement that the valuation of 60
3085 per cent applied to the ground only—you made that statement, didn't you?

A. Yes, sir.

Q. What is the practice as to the valuation of manufacturing appliances and machinery, etc. Is there any different rule in regard to that?

A. Well, take for instance real estate, if it is in a district in which there is in our opinion an element of speculation, we take that into consideration. It may vary from 35 or 40 per cent down to five. Now the buildings are taken for what we consider the cost price and deduct—

Q. My inquiry is as to manufacturing appliances or machinery?

A. Well, we make a discount on machinery.

Q. How much?

A. It varies on machinery as high as 50 per cent.

Q. How much did you discount the machinery of the Gas Company?

A. I made no particular itemization of the discount in theirs.

Q. What does the valuation placed by you contemplate as a discount?

A. I couldn't state any at all, that is, any particular discount in any line.

Q. Probably as much as fifty per cent?

A. Oh no, because what knowledge I would have I would not consider that they had very much investment in manufacturing.

Q. You didn't know enough about it to know what the real value was?

A. I wouldn't want to answer that way. My idea of the value of their plant lay in their distribution system rather than in the manufacturing.

Q. But as to the machinery appliances used in manufacturing it is generally put at 50 per cent?

A. 50 per cent would be the maximum. It would depend
3086 so much upon the nature of the machinery. When I talk about 50 per cent I mean the machinery which will wear rapidly.

Redirect examination by Mr. BRENNAN:

Q. You don't mean to be understood as saying that you have valued this property for the purpose of taxation at 60 per cent of its true value?

A. No, sir.

Q. Or 50 per cent?

A. No, sir.

Q. The \$1,350,000 which you returned, what does that purport to represent?

A. The actual value of the property as I considered it.

Recross-examination by Mr. READ:

Q. That answer is made in view of your previous answer that there is a practice to allow a varying per cent on machinery?

A. Yes, sir.

Excused.

JAMES HALL, being first duly sworn, examined in chief by H. W. BYERS, Esq., testified:

Q. Give your name and place of residence to the reporter?
3086½ A. James Hall; residence, Chicago, Illinois.

Q. What is your business?

A. Public accountant.

Q. How long have you been such?

A. I have been at the business 18 years.

Q. And with whom are you associated at this time?

A. A member of the firm of Marwick, Mitchell & Company.

Q. What is the business of Marwick, Mitchell & Company?

A. Public accountants.

Q. Where are their headquarters?

A. In New York.

Q. I wish you would state in a general way the field they cover in their operations as public accountants?

A. They are located in 18 towns in this country, in Paris, France, London, England, and Glasgow, Scotland.

Q. Will you give the names of the cities in this country where they have offices?

A. New York, Washington, D. C., New Orleans, Philadelphia, Boston, Pittsburg, Chicago, St. Louis, Milwaukee, Kansas City, St. Joseph, Mo., Minneapolis and St. Paul, Salt Lake City, Spokane, Montreal and Winnipeg, Canada. The business covers all matters with the accounting and auditing investigations on behalf of bankers, stockholders and directors, and acting as secretary and controllers of companies; generally anything connected in that line.

Q. Does the firm do any work for the Government?

A. Yes, sir; we act on behalf of the Comptroller of the Currency, investigating banks; we have acted for the Secretary of the Navy, installed a system of accounting in all the navy yards in this country.

Q. Now as to your own relation to the company, Mr. Hall,
3087 in what way are you connected with the firm?

A. Partner.

Q. How long have you been such?

A. Five years.

Q. Now, I wish you would state Mr. Hall in your own way as fully as you care to the experience and training you have had to fit you to perform the business or carry on the business of an accountant?

A. I served my articles of apprentice with a firm of accountants in Scotland. After completing it I qualified as a member of the Accountants' Institute; that entitled me to use the designation Chartered Accountant. I had twelve years' experience in various offices in the old country before coming to America; I have been six years here.

Q. Now in Scotland, will you give to the Master in a brief way just the period that is necessary to be occupied over there in fitting yourself to be a chartered accountant?

A. The present period is five years' articles.

Q. What was it when you were there?

A. Four years. Before qualifying attendance must be made at prescribed classes in the University, taking law and political economy, etc.

Q. Are you a certified accountant in any of the states of America?

A. Yes, sir.

Q. What one?

A. Ohio, Minnesota and Missouri.

Q. Is there any examination required?

A. Either an examination or acceptance of previous qualification.

Q. How was it in your case?

A. An acceptance of my qualifications as chartered accountant.

3088 Q. Are you a member of any association or organization?

A. I am a Fellow of the American Association of Public Accountants.

Q. Is that an American association?

A. Yes.

Q. Now I wish you would state the date from which your experience as a public accountant, chartered accountant begins?

A. I commenced my articles in August 1893; qualified as a chartered accountant in December 1900.

Q. Have you been continuously engaged in that profession and business?

A. Ever since, all the time.

Q. Now since 1893, I wish you would take plenty of time now, and state to the Master just what companies you have examined or just what you have done in the way of investigating the books and accounts of operating companies or companies of any kind since 1893. Do it in your own way and take plenty of time.

A. I am afraid that is almost impossible.

Q. As much as you can?

A. Commencing with my period in this country?

Q. Yes, sir.

A. I have examined all the companies connected with the General Motors Company, and acted as comptroller during the period of refinancing. Have examined the accounts of the Studebaker corporation, the Chicago City Railway Company, the Chicago Junction Railway Union Stockyards Company, People's Gas Light & Coke Company of Chicago, Consolidated Gas Company of New York, Cedar Rapids Gas Light Company, Cedar Rapids, Saginaw Gas Light Company, Saginaw. These are the principal ones I can now recall.

Q. When were you occupied in the examination of the People's Gas Light & Coke Company of Chicago?

A. At the close of the year 1905.

3089 Q. How extensive was that investigation?

A. That was an examination of the operating accounts for the year 1905.

Q. And the Consolidated Gas Company of New York, when was that examination made?

A. That was in December 1906.

Q. What was the scope of that examination?

A. It was an examination of the operating accounts for the year 1905, I think, and the construction accounts for a period of about 20 years.

Q. What was the purpose of the examination?

A. An adjustment of rates charged the consumers of New York City.

Q. What if anything did the examination have to do with ascertaining the cost and expenses of manufacturing gas?

A. It had almost all to do with it.

Q. Covered that entire field?

A. The entire field.

Q. When were you engaged in the examination of the Cedar Rapids Gas Light Company?

A. In the fall of 1907.

Q. What was the scope of that examination?

A. So far as I recall, all the accounts for a period of five years, both construction and operating.

Q. What was the purpose of the examination?

A. An adjustment of rates charged the consumers.

Q. Covering the entire field of the cost of manufacture and expense of distributing gas?

A. Yes, sir.

Q. And the Saginaw Gas Light Company, when was that investigation and examination made?

3090 A. In the spring of 1908.

Q. And was the scope of that examination similar to the others?

A. Similar to Cedar Rapids, I think, five years.

Q. Was it also for the purpose of ascertaining the cost and expense of the manufacture of gas?

A. Yes, sir.

Q. In a rate case?

A. Yes, sir.

Q. And in how many of those cases did you make up a complete report?

A. In the New York case, the Cedar Rapids case and the Saginaw case.

Q. In the People's Gas Light & Coke Company, for whom were you employed in that investigation?

A. The city council.

Q. And the Consolidated Gas Company of New York?

A. By the corporation counsel.

Q. And the Cedar Rapids Gas Light Company?

A. The City Attorney.

Q. Now in addition to the examination of the books of accounts of those concerns that we have just mentioned, have you had any other or further experience in the examination of the accounts of gas companies and public utilities?

A. Yes, sir.

Q. In a general way, will you state?

A. Have examined the accounts of public utilities of all kinds, acting on behalf of bankers, stockholders or directors.

Q. I wish you would give us some idea of the business of that firm, Marwick & Mitchell, the number of men employed and what they are doing and whom they serve?

A. At present we have approximately 275 upon the pay roll. They are located in the cities I have mentioned, engaged
3091 almost entirely in making investigations for various purposes and making audits.

Q. Do they have any other business except that of accountant?

A. No other business.

Q. They confine their operations to that class of work?

A. Entirely.

Q. Now, Mr. Hall, have you had anything to do with the examination of the books of accounts of the Des Moines Gas Company?

A. Yes.

Q. Since when?

A. Since July 10th or 12th?

Q. How did you come to be concerned with the examination of the Des Moines Gas Company books?

A. I was retained by the city council or mayor.

Q. About when was the date of your employment?

A. About July 10th of this year.

Q. Have you since that time made an examination and investigation of the books and accounts of the Des Moines Gas Company?

A. Yes.

Q. Over what period did the examination extend?

A. Up to within about two weeks ago, about the end of August.

Q. During that time have you had some assistance?

A. There have been four men on the work.

Q. I wish you would state just how long the four men were engaged in the work?

A. The total time to August 31 was approximately 1040 hours; 940 hours for the four men and about 100 hours for myself.

Q. Now, Mr. Hall, have you made up a report of the investigation and examination?

A. Yes, sir.

3092 Q. And do you have it with you?

A. Yes, sir.

Q. I wish you would hand it to the Master?

(The report handed to the Master is marked Defendant's Exhibit (30).)

Q. I wish now, Mr. Hall, using such memorandum as you care to for the purpose of refreshing your recollection, you would first state the scope of the investigation covering the Des Moines Gas Company property?

A. In regard to the operating accounts the examination covered a period of five years to December 31, 1910; it also included a general review of the construction accounts from 1886 to 1910.

Q. Anything further under that head; what if anything was done in the way of ascertaining the actual amount expended?

A. We ascertained the actual amount expended in the plant and property, commencing with the appraisal in 1895 down to date.

Q. Where did you get the appraisal?

A. The appraisal I think was by Col. Pratt in 1894, at the time of the last suit in this connection.

Q. That was made by Col. Pratt, who was then the manager of the Des Moines Gas Company?

A. As I understand it, yes sir.

Q. Will you state into the record what you ascertained with respect to the history of the company?

A. I ascertained the Des Moines Gas Company was incorporated March 1, 1906, to acquire the properties of the Capital City Gas Light Company, both concerns being owned and operated by the United Gas Improvement Company, the consideration granted by the Des Moines Gas Company for this property, including certain properties at Valley Junction amounted to \$3,334,000.

3093 Q. Made up in what way?

A. First mortgage 5% bonds \$285,000; 6% preferred stock contracts \$800,000; capital stock \$2,249,000. In addition the Des Moines Company assumed certain bond obligations of the Capital City Company of \$400,000. Of the \$285,000 Des Moines Company bonds \$45,000 was stated to be issued to Mr. Haines and Mr. Keffer in payment of the Valley Junction properties; and \$120,000 was paid over to the United Gas Improvement Company in liquidation of the debt of \$105,526.49. The remainder having a face value of \$3,169,000, was distributed to the stockholders of the Capital City Company by way of a dividend. Subsequent to March 1, 1906, additional bonds were issued, \$400,000, being to redeem the Capital City bonds and the remainder being issued against extensions. The total issue December 31, 1910, was \$1,097,000. 5% first mortgage bonds. Of the preferred stock contracts amounting to \$800,000 March 1, 1906, \$389,000 had been repaid, leaving outstanding December 31, 1910, \$411,000. The present capital stock outstanding is \$2,250,000.

The MASTER: You call stock indebtedness?

A. It is to the stockholders.

Q. Now that total is how much?

A. \$3,758,000, December 31, 1910.

Q. That includes two million and a quarter stock?

A. Yes, sir.

Q. Now on page 4 of your report, Mr. Hall, I wish you would explain for the Master the matter that appears there, just what you claim for it?

A. On page 4 we state the various expenses to be considered in determining whether or not 90 cents per thousand is a reasonable rate of selling gas to the consumer. The first matter to be considered is the cost of manufacturing and distributing gas, before making any payment in respect to interest on bonds or floating indebtedness. The second question to be considered will be one of depreciation, how much should be charged in that regard. We also have got to consider the investment in the business of the company upon which the stockholders are entitled to a return. Then we next consider what capital is invested in the business.

Q. You have set out here a table at the top of page 4, you may state what that represents?

A. The table represents the charge for gas during the period of the ordinance expiring December 31, 1910.

At this time an adjournment was taken until 1:30 P. M.

3095

1:30 P. M., TUESDAY, September 12, 1911.

JAMES PARKER recalled for further cross examination by W. L. Read, Esq., testified as follows:

Q. You have obtained and produced copies of the returns made by the Des Moines Gas Co. for the years 1909, 1910 and 1911 have you not?

A. Yes, sir.

Q. These returns are entitled "Statement of the Des Moines Gas Company Des Moines, Iowa, made under section 1323 of the code of Iowa for the purpose of assessment" are they not?

A. Yes, sir.

Q. For the year 1909 the copy is marked complainant's exhibit 45 is it not?

A. Yes, sir.

Q. For the year 1910 it is marked complainant's exhibit 46?

A. Yes, sir.

Q. And for the year 1911 complainant's Exhibit 47?

A. Yes, sir.

Q. These returns are upon blanks prepared by the assessor?

A. Yes, sir.

Q. And furnished to the gas company?

A. Yes, sir.

Mr. READ: Complainant offers in evidence Exhibits 45, 46 and 47 as part of the cross examination.

Mr. BRENNAN: To which offers and to each thereof the defendants object for the reason the same are incompetent, irrelevant and immaterial and for the further reason that they are mere self serving declarations of the complainant.

3096 Mr. READ: You do not make any objection that these are copies of the original?

Mr. BRENNAN: I want to find out first. I will if Mr. Parker has the original.

Redirect examination by R. O. BRENNAN, Esq.:

Q. Are these exhibits, Mr. Parker, made from the originals filed in your office?

A. Yes, sir.

Q. And have been compared by you?

A. They have, yes, sir.

Mr. BRENNAN: Then the objection that the offers are not competent does not go to the form in which the offer is made, that is to say the defendants do not object to the fact that the copies are offered instead of originals.

Q. Do you recall whether you requested any statement of the company during these years or did they volunteer these statements?

A. I requested the statements. Not as to that statement of valuation I requested the information required by — 1323 of the code.

Witness excused.

3097 JAMES HALL being continued on direct examination by Hon. H. W. Byers, testified as follows:

Q. Referring again Mr. Hall to some of your answers before dinner, if I understood you correctly the consideration as shown by the books of the Des Moines Gas Company for the property of the Capital City Gas Light Company as set out in the books, actual book entries of the Des Moines Gas Company showed a total of \$3,335,000 made up of the following items: \$285,000 of first mortgage five per cent 20 year gold bonds, dated March 1, 1906, being a part of a total authorized issue of \$1,500,000, \$800,000 of six per cent preferred stock contracts and 22,490 shares of \$100 of the capital stock of the company out of a total authorized issue of 22,500 shares making \$2,249,000 in stock, is that correct?

A. Yes, subject to the correction that the total was \$3,334,000.

Q. And these figures appear upon the books of the company do they?

A. Yes, sir.

Q. In that entry was the Valley Junction plant included?

A. Yes, sir; \$45,000.

Q. Now later on you stated that the bonded indebtedness as shown by the books of the Des Moines Gas Company, the five per cent bonded indebtedness had increased to \$1,097,000 up to the 31st day of December, 1910. That of the six per cent preferred stock

contracts there remained unpaid at that date \$411,000 and at that date there was outstanding 22,500 shares of stock making a total of \$3,758,000. Is that shown by the books of the Des Moines Gas Company.

A. Yes, sir.

Q. What do you have to say as to whether or not this
3098 \$3,758,000 represented the total indebtedness of the company on December 31st, 1910?

A. It is the total indebtedness to the bond holders and the stock holders.

Q. Counting the stock?

A. Yes, sir.

Q. Then if I understand you up to this point without reference to any memorandum, if I understand your testimony up to this point, the Des Moines Gas Company at the beginning of its existence after its organization and the issuance of its stock, the Des Moines Gas Company started out with an indebtedness of \$3,334,000.

A. Plus an indebtedness of \$400,000 first mortgage bonds of the Capital City Company.

Q. Which it had assumed, but the securities that it actually issued at the beginning of its existence as shown by the books of the company if I understand your testimony is \$3,334,000.

A. Yes, sir.

Q. And at that date the beginning of its existence it owned or had whatever assets the Capital City Gas Light Company had transferred?

A. Yes, sir.

Q. And no more?

A. No more.

Q. You stated before dinner that there was several things involved in the question of the reasonableness of a given rate per thousand feet of gas. I wish you would state now, taking all the time you need, your conclusions upon these several questions that you stated before dinner and how you arrive at it?

A. The first consideration is the cost of manufacturing and distributing gas in the city of Des Moines. I made up the statement on page 5, showing the cost of manufacturing and distributing gas leaving out of consideration all interest and bonded and floating indebtedness, depreciation of the plant, also several items of an extraordinary nature not chargeable to the operations of the gas plant and to be considered separately and the results are that for the two months to February 28, 1906, the cost of manufacturing and distributing in Des Moines excluding depreciation and all interest was 67.13 cents per thousand cubic feet. For the year to February 28, 1907, the cost was 64.86 cents. For the next year to February 29, 1908, 63.49 cents. For the year to February 28, 1909, 59.73. For the ten months December 31, 1909, 52.92 cents, giving an average for the four year period of 62.79. For the year to December 31, 1910, the cost was 65.19 cents with an average for the five years of 63.34 cents.

Q. Now you may state what the fact is as to whether these figures

which are the basis of your final averages are shown and were taken from the books of the company, actual operations of the company?

A. In all cases subject to one or two minor adjustments.

Q. What were those minor adjustments?

A. The elimination of a charge made by the company for the expense of regulating rates in the city. The company charged that expense as an operating charge and I exclude it on the ground that it has nothing to do with the consumer.

COURT: The expense of what?

A. Making the appraisal and rate regulation cost.

Q. It is that item of \$5,000 and some dollars?

A. \$5,935 I think is the exact figure.

Q. Is your other answer answer exactly correct Mr. Hall, is it not fair or truthful for me to say that all of these figures as they appear here were taken from the books?

A. In all cases, yes.

Q. I mean in these tables from which you arrive at these averages of cost of manufacturing and distributing gas on page five?

A. In all cases, they were taken from the books.

Q. What you mean is that the books show in addition to what you have set out here and figures that you use a claimed expense of operation of something like \$5,000 which was paid for work in this law suit?

A. Yes, sir.

Q. Getting ready for this lawsuit?

A. Yes, sir.

Q. That you have not included in these figures for the purpose of arriving at these averages?

A. I have not, I have excluded this figure and included another figure which they do not have in the books.

Q. What item is that?

A. The item of federal tax applicable to the year 1910 and not paid until 1911. It is a proper charge against 1910 and I so entered it.

Q. Now was there any other elimination?

A. Yes, in the two months' period to February 28, 1906, I eliminated all accident claims applicable to the prior period.

Q. Then what do you have to say as to whether the figures that you used as the basis for these tables and averages being figures that actually appear upon the books of the company and cover the operations of the company for the years stated with the one exception of what you may term expense of this litigation?

A. They do.

Q. Now will you give your conclusion on the next proposition if you were through with this one?

3101 A. Not quite. The figures given on page 5 as representing the actual expense of manufacturing and distributing have been adjusted to give effect to the tax payable to the city in the event of this ordinance passing, that is 2/10 of a cent. That is found on page 6. The tax payable to the city I believe is two per cent of the gross earnings of the company.

Q. Then I wish you would proceed and give the Master the adjusted cost with that change?

A. For the two months to February 28, 1906, 66.93 cents per thousand cubic feet. For the year to February 28, 1907, 64.66 cents. For the next year to February 28, 1908, 63.29 cents. For the year to February 28, 1909, 59.53 cents. For the ten months to December 31, 1909, 62.72. Average for four years to December 31, 1909, 62.59. For the year to December 31, 1910, 64.99 cents. Average for the five years to December 31, 1910, 63.14 cents.

Q. Now if you will, just proceed with the working out of your conclusions just as you have stated them.

A. I adjusted this report to give effect to the allowance in respect to depreciation covering the wear and tear and probable inadequacy and obsolescence. In that connection I may say no regular depreciation charge is put through the books of the company but they are undoubtedly entitled to one, consequently I added six cents per thousand cubic feet of sales.

Q. Right at that point, you say if I understood you a moment ago that the books do not contain any regular continuous charge for depreciation.

A. They do not.

Q. Go on in your own way with your explanation?

A. I enter an allowance of six cents per thousand cubic
3102 feet for each period after I have the adjusted allowances making for the two months ending February 28, 1906, 72.93 cents.

Q. Including the six cents, allowance for depreciation?

A. Yes, sir. For the year ending February 28, 1907, 70.66 cents. For the year to February 29, 1908, 69.29 cents. For the year to February 28, 1909, 65.53 cents. For the ten months to December 31, 1909, 68.72. Average for four years to December 31, 1909, 68.59 cents. For the year to December 31, 1910, 70.99 cents. Average for five years to December 31, 1910, 69.14 cents.

Q. Now if you will proceed with your adjustment and give the effect as you say to the ninety cent gas rate?

A. The next question to be determined was what profit would accrue to the company applying these adjusted costs assuming a ninety cents rate for gas in Des Moines. The sales were not known for 1911 consequently I placed the 1910 sales on a basis of ninety cents and applied the adjusted costs including six cents for depreciation.

Q. How did you arrive at that definite figure of six cents for depreciation?

A. Being in my judgment a reasonable sum to cover the wear and tear and probable inadequacy and obsolescence of the plant.

Q. On what does your judgment rest, experience?

A. Experience of having examined accounts of similar companies and consultations with various engineers.

Q. Have you tested out that rate well enough so you are willing to state it here as a fair allowance?

A. In my opinion it is a fair allowance.

Q. All right go on.

A. The adjustment statement is given on page 7. In the first column I entered the sales in Des Moines, Valley Junction and the used at works. In the second column the results stated in dollars and cents accepting the company's operating expenses as shown on the previous page. The net revenue on this basis available for interest and other charges would be \$192,107.65. That is on the basis of dollar gas.

Q. The basis on which they are operating now?

A. Yes, sir. Apply the same figures for Des Moines on the basis of ninety cents.

Q. Without any increased sales?

A. Without any increased sales or increased expense, giving effect to the allowance for depreciation, have a net revenue available for interest and other charges of \$104,884.98 made up of the sales in Des Moines 521,486.354 feet at 90 cents or \$469,337.72. The Valley Junction sales on the basis of the actual receipts during 1910 \$10,579.02. The used at works I enter at a dollar and treated the figure at the same rate in the expenses, makes no difference in the rate, \$3,615.60. The total sales of \$483,532.34. I deduct for discount applicable to the Valley Junction sales, \$1,000.

Q. Why did you do that?

A. Well they have to give a discount for prompt payment there. I understand the new ordinance here does not provide for discount.

Q. You deduct that amount because of that fact?

A. Yes, sir; and I might say that a thousand dollars is good and high.

Q. It is plenty anyway?

A. It is plenty anyway. Gives \$482,532.34. The operating expenses are \$377,647.36, leaving a net revenue of \$104,884.98. That return is equivalent to 19.71 cents per thousand cubic feet sold.

Q. That is this \$104,884.98 is equivalent to the net return?

A. Net return available for interest and other charges of 19.71 cents.

Q. I wish you would explain to the Master the method adopted by you and the basis upon which you adjust operating expenses.

A. I accepted the operating expenses as actually recorded in the books subject to the deduction for the rate expenses and the addition of taxes and enter them at \$346,785.35. Added depreciation six cents per thousand on sales of 531,991,234, that is equivalent to \$31,919.46. From that I deduct the 2/10 of one cent adjustment in respect of the city taxes.

Q. What city tax do you refer to?

A. Payable to the corporation two per cent on gross sales in Des Moines, \$1,057.45 giving the adjusted operating expenses of \$377,647.38.

COURT: How do you come to deduct that tax?

A. At the present rate on dollar gas the company pays the city two cents. On ninety cent gas two per cent of ninety cents would

be 1.8 cents, would be a corresponding deduction, the amount payable the city is two per cent of the gross receipts.

Q. As I understand that proposition up to that point, the books of the company show and these figures are taken from the books by you and your men, that the net revenue at the present rate of gas for interest and other charges for 1910 was \$192,107.65.

A. Yes, sir.

Q. And then you take as a basis the same sales knowing the sales and figure out the net revenue available for the same purposes at the ninety cent rate and increase the expenditures the difference between \$346,785.35 as shown by the books of the company 3105 and your adjusted amount of \$377,647.36.

A. Yes, sir.

Q. Which represents what you have added to the operating expenses under the ninety cent rate?

A. Yes, sir.

Q. And it works out a net revenue available for interest and other charges of \$104,884.98 or the equivalent to a return of 19.71 cents per thousand cubic feet of gas sold.

A. Yes, sir.

Q. Did you find the operating expenses of this company for the year 1910 to be usual and ordinary or were they abnormal?

A. They seemed to be abnormal.

Q. And how were the four preceding years?

A. They appeared to be quite normal.

Q. I notice you state here that adopting results which you have • adjusted and including depreciation gas at a sale price of 90 cents in Des Moines you have a net revenue available for interest and other charges of \$145,173.06. Does that come in a later computation?

A. Yes, it does. I might say I prepared computations on a basis of average operating expenses for four years preceding in order to determine the true working conditions of the company.

Q. Now if you will, take up the fourth proposition and work that out for the Master explaining it to him as it appears on page nine?

A. The table on page 9 is a statement showing the net return as previously determined on a basis of ninety cent gas assuming an actual expense for 1910. The second table is prepared on a basis of ninety cent gas assuming the manufacturing expense for 1910 3106 together with the average distribution expenses for four preceding years while the third table is on the basis of actual manufacturing expenses plus the average distribution charges of five years to December 31, 1910. I then state the return per thousand cubic feet of gas sold to the Capital on the basis of various rates of interest running from five to eight per cent.

Q. Now if you will just take the first row of figures in your table opposite your five cent figure and explain that to the Master as you go through, I don't believe I quite catch all of that. Take the first figure there.

A. On the basis of the revenues set forth on page 6 adopting as a basis ninety cent gas and adjusted expenses, we would have a return

available for interest and dividends of \$104,884.98. On a basis of a return of five per cent to the company for a capital of \$2,097,701.60.

Q. In other words the return of \$104,884.98 as you figure it out under ninety cent gas would bring a return of five per cent upon a valuation of \$2,097,701.60.

A. Yes, sir.

COURT: You ascertain that by dividing \$104,884.98 by five?

A. Yes, sir. This table is simply a guide. On the basis of a return of five and one half per cent the investment would be \$1,907,001.45. On a basis of six per cent the capital would be \$1,748,084.66. On a basis of six and a half per cent the capital would be \$1,613,616.61. On the basis of seven per cent the capital would be \$1,498,358.30. On a basis of a return of seven and a half per cent the capital would be \$1,398,467.73. While on an eight per cent basis the capital would be \$1,311,063.50.

Q. The second column represents what?

A. The estimated net revenue assuming a ninety cent gas and adjusted expenses on the basis of the four preceding years.
3107 That would give a return of \$145,173.06 equivalent to 27.28 cents per thousand feet sold.

Q. That column represents the same method of computation that the first one does on the five, five and a half, six and so forth per cent?

A. Yes, sir.

Q. And the third column?

A. The return is ascertained on the basis of ninety cent gas less actual manufacturing for 1910 and average distribution for five years to December 31, 1910, including last year?

Q. Which you say is an abnormal year?

A. Yes, sir.

Q. That would figure a return of \$135,863.22?

A. Yes, sir.

Q. Or 25.53 cents for each thousand feet of gas sold.

A. Yes, sir.

Q. That is a profit?

A. Yes, sir.

Q. The column of figures then below you worked out in the same way you did the first two columns?

A. Exactly.

Q. Did you ascertain from the books the per cent of increase in sales made this year as compared with 1910?

A. Yes, sir. For the first seven months of 1911, compared with the first seven months of 1910 there was an increase of 6.16 per cent or 18,000,000 feet, 18,141 x 180 feet.

Q. And how did you ascertain that fact?

A. From the book records.

Q. From the books of the Des Moines Gas Company?

A. From the books of the company, yes.

3108 Q. The figures with respect to the increase were taken from the books. We took the actual sales for both periods and ourselves figured out in the increase.

COURT: In getting that \$145,173.43 what did you exclude?

A. I consider the operating distribution expense of 1910 to be abnormal and to get a fair estimate of the expense I took the actual expenses of the four preceding years.

COURT: Then you did not exempt anything there?

A. No, rejected nothing.

COURT: Just took the average?

A. Took the average.

MR. BYERS: For four years?

A. Four years.

Q. That would be——

A. 1906, 7, 8 and 9.

Q. Working that out to get that result you accepted the entire on the complainants' books just as they appeared?

A. In all cases except as previously mentioned rate expenses.

COURT: How did you get the \$135,000?

A. I took the average expenses of the five years including the abnormal year of 1910.

Q. Did you ascertain from the books of the company the exact amount of the investment in the Des Moines Gas Company plant?

A. I did.

Q. I wish you would state to the Master what you found it to be and give him the items?

A. The investment or actual cost of this plant accepting the appraisal of 1894 as a basis and deducting the six cents of depreciation already referred to gives an actual investment of \$1,481,813.67 in physical properties and in working capital of \$68,952.91, a total of \$1,550,766.58.

3109 Q. That is for instance that statement \$1,550,766.58 represents the total investment of the Des Moines Gas Company less the depreciation which you deduct?

A. Yes, sir.

Q. What is the total depreciation?

MR. BYERS: That comes a little further over. We might as well have it right there.

A. The total physical property, pages 20 and 21, excluding depreciation and based on an appraisal of 1894, is \$1,727,675.67.

Q. Now what does that figure actually represent, that \$1,727,675.67?

A. It represents an appraisal of January 1, 1895, prepared by Col. Pratt, \$429,426.83, additions shown by the books from January 1, 1895, to December 31, 1910, \$1,133,248.84, the cost of the Valley Junction property paid in bonds \$45,000, an item not recorded on the books but which appears to be in the plant of a holder, a gas holder I enter \$120,000 for.

Q. That is the gas holder which is paid for by the United Gas Improvement Company with \$120,000 of bonds.

A. That is the same holder, but we do not know who paid for it or anything about it, no one can tell us.

COURT: You have got it back here \$105,000?

A. No, sir; that was another thing, that \$105,000 was debt due by the Capital City Company to the United Gas Improvement Company which the Capital City Company paid for in \$120,000 of bonds by the Des Moines Company. This other \$120,000 in respect to the holder in the works that does not appear in the books of the Capital City Company or Des Moines Company claims was paid for by some one, we can't find who paid for it or anything about it; I put — in at \$120,000.

Q. Did you make inquiry of the officers of the company to furnish you information with respect to that holder?

A. Asked about it several times.

Q. Were you given any?

A. I was given to understand the records were not available.

Q. So if I understand you then you allowed them in making up the total investment in the property you allowed them \$120,000 for that hold-r?

A. Yes, sir.

Q. Out of these items you get a total of \$1,727,675.67.

A. Yes, sir.

Q. If I understand you that is the amount as shown by the books that was actually put into this property in money barring two items which is the appraisal of \$429,426.83, you took that just as it was made by Col. Pratt.

A. Yes, sir.

Q. And \$120,000 that you assume to be the fair value of the holder and allowed it?

A. Yes, sir.

Q. And with those two items it makes a total investment in the Des Moines Gas Company, that is all of the money that has gone into it from the beginning up to the 31st day of December, 1910, of \$1,727,675.67.

COURT: You don't know whether that represents the money or not in 1895, but includes the appraisement of 1895?

Mr. BYERS: I was barring that item, I take it he assumes that to represent the value up to that time.

A. Yes, that is so.

Q. Now going back where we were. Explain right there and complete that testimony in the record how you reduce this amount shown on page 20, \$1,727,675.67 to \$1,550,766.58, used by 3111 you here in your fifth proposition as capital invested?

A. By deducting the allowance covering depreciation \$245,862.00. That depreciation that showed against the operations of the company and credit the investment account——

Q. That we will find as we go on, how you arrive at that item.

A. Yes, sir.

Q. The difference between \$1,550,766.58 and the other figure on page 20 is represented by your depreciation?

A. Yes, sir.

Q. And that total, what do you have to say as to whether that

covers not only the investment in the Des Moines gas plant, but also the investment in the Valley Junction gas plant?

A. It covers them both. The total investment of the company here so far as shown by the books.

Q. When you say here——

A. I mean Des Moines and vicinity, Des Moines and Valley Junction as operated by this company.

Q. In connection with your former answer just what is the figure as shown by the books that represents the Valley Junction investment?

A. \$45,000.

Q. Now applying the net revenues referred to by you in your solution four, I wish you would explain to the Master just what returns have been earned by this company on that valuation as you figure them out?

A. On the basis of ninety cent gas and the actual manufacturing and operating expenses for 1910, including an allowance of six cents for depreciation the net revenue would be \$104,884.98 equivalent to 6.76 per cent on an investment of \$1,550,766.58. Assuming a basis for sales and the actual manufacturing expenses for 1910 and 3112 the averaging operating expenses for the four years 1906 to 1909——

Q. Those are the same four years again and you take them because you find them to be normal average years?

A. Yes, sir.

Q. All right, go on.

A. The net revenue would be \$145,173.06, a return upon that investment of 9.36 per cent on an investment of \$1,550,766.58.

Q. That is the net investment with depreciation out?

A. Yes, sir. On a basis of ninety cent sales and actual manufacturing expenses for 1910 and the averaging operating expenses for the five years 1906 to 1910, plus the usual depreciation of six cents the net revenue would be \$135,863.22 equivalent to a return of 8.76 per cent on an investment of \$1,550,766.58.

Q. Now take the expense for 1909 and 1910 as I understand you made some additions to what is shown on the books?

A. Yes, sir. I charged to the expense of the year 1909 the federal tax paid in 1910. I eliminated from 1910 that same tax and added the federal tax paid in 1911.

Q. Then there was a federal tax paid in 1909?

A. Oh yes. Paid in 1910 for 1909.

Q. Paid in 1910 for 1909?

A. Yes, sir.

Q. And that item when found upon the books for 1910 would indicate that it was measured by the income of 1909, is that right?

A. Yes, one per cent of the income of 1909 subject to certain deductions \$5000 is the statutory deduction and the interest on bonds and floating debt.

Q. And depreciation?

3113 A. And depreciation if any.

Q. The same would be true if you found in the books of

this company a charge in 1911 for federal tax that would represent the amount due the government from the company for the year 1910?

A. Yes, sir.

Q. And would be measured by the sworn statement of the company to the government as to its gross net income, is that right?

A. Yes, sir.

Q. Now I wish you would go through this summary on page 11 and explain it to the Master just as you have explained the tables that preceded it?

A. That is a statement in cents per thousand cubic feet manufactured of the cost of manufacture at the works less deductions in respect to the proceeds from residuals. The total cost of manufacturing less the residuals for the two months to February 28, 1906, was 36.82 cents per thousand. For the year February 28, 1907, 36.89 cents per thousand feet. For the year February 29, 1908, 35.13 cents per thousand. For the year February 28, 1909, 32.98 cents per thousand. For the ten months December 31, 1909, 30.75 cents per thousand. Average for the four years to December 31, 1909, 34.02 cents per thousand. For the year December 31, 1910, 29.76 cents per thousand. With an average for the five years to December 31, 1910, of 33.04 cents per thousand.

Q. Where did you get the basis of these computations?

A. From the books.

Q. From the books of the Des Moines Gas Company?

A. Yes; unadjusted.

Q. Now what adjustment do you refer to?

3114 A. I made no adjustment on the books.

Q. So that this manufacturing cost as it appears here is taken from the books of the Des Moines Gas Company?

A. Entirely.

Q. And is correctly set forth here as it appears on the books of the company?

A. It is.

Q. Checked up by you?

A. Yes, sir.

Q. And in making up the figures you have assumed that the entries in the books represent the cost of the several items?

A. I have.

Q. Now did you find anything unusual in the way of repairs in 1910 or any extraordinary repairs of any kind?

A. They seemed quite heavy as compared to the preceding years.

Q. What did you find with respect to that?

A. In 1910 the repairs cost 2.55 cents per thousand as compared with an average for the preceding four years of 1.71 per cent per thousand, for 1.91 per thousand for the ten months to December, 1909, 1.21 per cent per thousand for the year to February 28, 1909, 1.46 cents per thousand for the year February 28, 1908, 2.32 cents for the year to February 28, 1907, and 2.05 for the two months to February 28, 1906, an average for the five years to December 31,

1910, of 1.09 cents per thousand as compared with 2.55 cents for the year 1910.

Q. That is the average of repairs?

A. Average in repairs.

Q. Now again in dollars and cents the total amount, what did you find it to be for these years you have used in getting at your average?

3115 A. For the two months, February 28, 1906 \$1,370.91.

For the year to February 28, 1907, \$9,699.99. For the year February 29, 1908, \$6,875.23. For the year February 23, 1909, \$5,966.71. For the ten months December 31, 1909, \$8,213.18. For the year December 31, 1910, \$14,193.78. A total of \$46,279.80.

Q. And that amount was distributed over the plant generally or was it used largely in some particular part of it?

A. No it appears to be quite largely used on remodeling the water gas apparatus and coke shed apparatus.

Q. Just what proportion of it was used at the plant I mean down here on the east side of the river?

A. The actual works?

Q. Yes.

A. All the expenses just mentioned were used in the plant, the manufacturing plant.

Q. And were these items taken from the books of the company?

A. Entirely.

Q. Now if you will go through the distribution in the same way Mr. Hall was rapidly as you can and do the matter justice?

A. The distribution expense includes complaints, distribution office expense gratuities, works repairs to the mains services and meters, setting and removing meters street mains store room and stable expense. Total for the two months February 28, 1906, 5.82 cents per thousand sold. For the year February 28, 1907, 4.67 cents per thousand. For the year February 29, 1908, 5.44 per thousand. In all cases sales. For the year February 28, 1909, 5.32 per thousand. Ten months to December 31, 1909, 6.60 cents per thousand. Average for the four years 5.52 cents per thousand. For the year December 31, 1910, 8.49 cents per thousand. Average for five years to December 31, 1910, 6.21 cents per thousand.

3116 Q. Now commercial expenses?

A. Commercial expense includes expense of collection and office expense, office salaries and proportion of the general management and was a total for the two months to February 28, 1906, of 7.92 cents per thousand feet sold. The year to February 28 1907, 7.56 per thousand. The year February 29, 1908 7.31 cents per thousand. For the year February 28 1909, 7.57 cents per thousand. The ten months December 31, 1909, 8.34 cents per thousand. Average four years to December 31, 1909, 7.67 cents per thousand. For the year to December 31, 1910, 9.01 cents per thousand. The average for five years to December 31, 1910, 7.98 cents.

Q. Was this expense increased quite considerably during the year 1910 over the average of the former years?

A. Yes, it goes *yp* quite a good deal, 9.01 cents in 1910 as against an average of 7.67 an increase of 1.34 cents.

Q. How was that additional expense apparently absorbed, how did it show on the books what it was covered by?

A. Just a general increase in the running expenses of the office a more liberal policy.

Q. Any increase in the salary list?

A. Yes, my recollection is that in 1910 the salaries went up right down the line, all salaries went up, increases to every one in 1910, or almost everyone. I might say that the expense for 1910 included the cost of an added machine and a calculating machine.

Q. And what did they cost?

A. The adding machine \$623.64 and the calculating machine \$225.

Q. These figures covering commercial expense do they correctly show just what the Des Moines Gas Books show unadjusted?

A. Exactly as their books unadjusted.

Q. No additions or subtractions?

A. No additions and no deductions.

Q. Now the new business.

A. The new business includes the expense of advertising appliances, demonstrations, expenses soliciting, gas appliances, gas engine expenses, house fitting expenses, etc., including an allowance for general management, cost the two months ending February 28, 1906 4.38 cents, the year to February 28, 1907 4.76 per thousand sold for the year to February 28, 1908 4.36 cents per thousand sold the year to February 28, 1909 2.96 per thousand the ten months to December 31, 1909, 3.93 cents. Average for the four years 3.98 cents. For the year to December 31, 1910, 4.54 cents. For the five years an average of 4.11 cents per thousand sold.

Q. Now was there any adjustment made by you in respect to any of these expenses?

A. None.

Q. Just as they appear on the books of the company?

A. Just as they appear.

Q. The total averages you have given are correct averages?

A. They are.

Q. Based on the sales as shown by the books of the company.

A. Yes, sir.

Q. Now the advertising expense you find to be considerable increased do you not?

A. Yes, sir.

Q. No the year 1910, how was that shown on the books?

A. By general increase in the expense of advertising, salaries and other expenses including very considerable payments to the U. G. I. for advertising literature.

Q. The United Gas Improvement Company of Philadelphia?

A. Yes, sir.

Q. And the soliciting expense increased, now how did you find that was accounted for on the books?

A. Due to an increase in salaries, general increase.

Q. In what year?

A. For both 1909 and 1910, beginning about the latter half of 1909 I think.

Q. Do you have any memorandum handy from which you can tell just when the increase in salaries began?

A. We have it, I can get it for you. I don't have it beside me now.

Q. Was there any of that prior to the year 1909?

A. No my recollection is that the years before that was somewhat more normal increase in the way of salary raises.

Q. Now the general expenses.

A. General expenses include accident or damage claims association meetings, general expenses, extra expenses, insurance litigation, street lamp operating and salaries general. The cost for the two months to February 28th, 1906, was 1.36 cents per thousand. For the year to February 28, 1907, 2.68 cents. For the year to February 29, 1908, 2.19 cents. For the year February 28 1909, 2.49 cents, for the ten months to December 31, 3.78. Average for the four years to December 31, 1909, 2.72 cents. For the year to December 31, 1910, 4.90 cents per thousand. The average for the five years December 31, 1910, 3.22 cents per thousand.

Q. I notice from your statement that the total for the year 1910 was over two cents higher than the average for the four preceding years?

A. Yes, sir.

Court: That includes the \$10,000 there does it?

A. It does.

Court: That is figured in the year for December 31, 1910?

A. Yes, sir.

Court: Take that \$10,000 out, what would it be?

A. 3.02 cents per thousand sold. The 1.88 cents is the \$10,000, that is the only item in that.

Q. Then if I understand you the 1.88 is an added expense to the year 1910 and is absorbed entirely by the \$10,000 in alleged salaries to the employes of the U. G. I.?

A. Yes, sir.

Court: I don't understand this fully now. You put salaries there 1.88 in 1910. That is general salaries. Is that an increase or the total salaries?

A. The 1.88 is on the basis of \$10,000 per annum to four or five U. G. I. officials.

Court: That don't mean salaries to the manager?

A. Oh no, excludes the manager and all local officials, covers Mr. Bodine, Mr. Clark, Mr. Lilley, Mr. Douthirt and Mr. Pearson.

Q. You don't include in this list chargeable there the salaries of the men and the manager of the concern do you?

A. No, sir.

Q. Where are those salaries taken care of?

A. They are spread over the business. In the office and commer-

cial expense, monthly distribution, office salaries, they are mostly in distribution and commercial.

3120 Q. In 1909 you have .10 of a cent?

A. That is the average four years to December 31, 1909.

Q. There would be a little there, a month of that \$10,000?

A. Two months. 1909 includes two months. Commenced paying salaries November 1, 1909.

Q. This \$10,000 extra?

A. Yes, sir.

COURT: What is that .41?

A. That re-resents two months' salaries some officials drew during the year 1909, they commenced paying November 1, 1909.

Q. I was in the wrong column when I asked you about the .10 cents the third column on the end represents the average for the four years?

A. Yes, sir.

Q. And the .41 represents the two months that these extra salaries were paid in the year 1909?

A. Yes, sir.

Q. Now you may give such further explanation as you wish with respect to these extra expenses as you have apparently done on page 15, explain that page to us?

A. There is an average charge during five years December 31, 1910 of .56 per thousand and of .75 per thousand during the year to December 31, 1910 in respect to the account called expense extras, that account covers donations, subscriptions, charities, club subscriptions, bonuses and a few more.

Q. Was there an apparent increase in this during 1909 and '10?

A. Yes, steadily rising. For the two months February 28, 1906, that cost \$27.50. For the year to February 28 1907, that was \$1,914.50. For the year to February 29, 1908, it was \$1,371.65.

For the year to February 28, 1909, cost \$2,062.31. Ten months to December 31, 1909, \$3,392.35. For the year to December 31, 1910, cost \$3,964.78.

Q. Then if I understand you that class of expense extra for 1909 and 1910, or for 1910, was \$3,964.78?

A. Yes, sir.

Q. And what do you say that covered, what is included in these figures. I note you say in one place here bonuses. What do you mean by that?

A. \$200 in 1910 was given to a club, club subscriptions. Y. M. C. A. \$100. Methodist Hospital \$100. Greater Des Moines Committee \$2,225. Roadside Settlement \$50. Mercy Hospital \$400. Sundries including Mr. Haines' expense extra \$178.78. Item donation to J. Haines \$711.

Q. Those items you have just read are covered by this item here under the year ending December 31, 1910, \$3,964.78?

A. Yes, sir.

Q. I wish between adjournment and the coming on of court in the morning you would have these items typewritten and furnished to me on a separate sheet.

A. For one year or five?

Q. Better have it for both years, 1909 and 1910?

A. All right.

Q. Now what further comment, if any, do you care to make or explanation of the salaries general?

A. The salaries were placed on the books in the first instance on November 1, 1909, or from that time, and they carry \$10,000 per annum.

Q. Now do any of the persons to whom a credit for salary appears on the books, had they ever drawn salary from the company before, so far as the books show?

3122 A. Not so far as I ascertained.

Q. Did you find in your examination any vouchers showing payment of any of these salaries or of receipt for any of these salaries?

A. My recollection is the salary checks were endorsed each month by these parties.

Q. Their names appear on the salary check?

A. Yes, sir.

Q. And who drew the checks, where were they drawn, here or somewhere else?

A. Here I presume.

Q. Do you know how those entries got on the books? Did you find anything or did your men find anything among the papers of the gas company to show how these entries came to be made on the books here?

A. I don't know that I quite follow you.

Q. Well for instance at the end of the year or whenever the entry was made on the books did you find anything indicating that these entries were directed by letter or communication or otherwise from some person or company?

A. No, they were authorized by minute of directors and are placed on the books monthly just as they pay the ordinary force.

Q. All you found then was the transaction in the directors' or stockholders' minute book and then each month these several persons were credited with—

A. They had a check sent them each month?

Q. You are sure about that are you?

A. Quite certain.

Q. Sure about that that among the vouchers up there will be found checks for these salaries.

3123 A. Checks or vouchers of some kind; voucher checks I think they are.

COURT: Who drew the checks?

A. Drawn by the cashier in the office, I don't know his name.

Q. If you have any doubt about that I would like to have you verify it between adjournment and coming in court in the morning and I would like to have you bring with you if the manager of the gas company will permit you to have them, these vouchers or checks.

COURT: Do you know whether or not they were drawn by S. G. Bodince?

A. Yes, drawn to them individually.

COURT: Did he draw these checks?

A. He did not draw them, but made — payable to Mr. Bodine.

COURT: I know, but did he draw the checks on the treasurer?

A. The treasurer drew them on the Des Moines Company.

COURT: Did the secretary draw them?

A. I could not say which official drew the checks.

COURT: You don't know who signed them?

A. Signed by an official here.

Mr. BYERS: In that expense extra have you tabulated the expense extra for the several months since the first of January 1911?

A. No.

Q. What I want to know is whether you have made up a table of the extra expenses since January 1911?

A. No.

Q. So that you can't say now whether this increase has been continued?

A. I can't say.

Q. Do you have on that memorandum that you submitted
3124 a moment ago or that you used in refreshing your recollection as to items making up the total of \$3,964.78 for 1910, do you have on that memorandum the amount of increase of salary to the manager or president of the company?

A. No.

Q. That does not show there?

A. No, this is simply a record of the extra expense.

Q. Now one further item there so that there will be no question about how you deal with it, on page 16 of your report I wish you would explain a little more fully just what that item included and why you exclude it from your computations in arriving at the cost of manufacturing gas.

A. That item \$5,935.18 was in most part paid to the U. G. I. of Philadelphia for the service of draftsmen and engineers preparing the inventory and was worked for the plaintiff here connected with this present suit.

Q. \$5,935.18?

A. Yes, sir.

Q. How was that expense entered on the books of the Des Moines Gas Company?

A. It was mostly entered from voucher.

Q. I don't mean the method or manner in which entered, what did they call it, litigation expense, or what?

A. Replacement value, rate regulation expense.

Q. Do you have some memoranda showing that?

A. Not a copy of the account.

Q. You have handed several pages here covering items under the title Des Moines Gas Company, rate litigation expense, 1909, 1910. Is this supposed to be an abstract from the company's books?

A. Yes, sir.

3125 Q. Just as it appears there?

A. Yes, sir.

Q. Defendant's Exhibit No. 31 identified by the reporter is the abstract of the company's books covering this item of \$5,935.18?

A. Yes, sir.

Q. Before I go any further there were any of these extra salaries if I may use that term allowed and any item showing any such salaries appearing on the books prior to November 1, 1909?

A. No, none.

Q. Now you may state to the Master further if you care to just why that item \$5,935.18 should not be credited up to operating expenses?

A. It should not be charged to operating expenses as it is not an annual recurring charge and is not one directly connected with the operating of the business. It is a special charge and should be specially taken care of.

Q. And for that reason you have excluded it all through your computations?

A. Yes, sir.

Q. Now then taxes?

A. Taxes include general taxes, federal tax and special city tax, covering two months February 28, 1906 amounted to 6.14 cents per thousand. For the year to February 28, 1907, 5.56 per thousand. For the year to February 29, 1908, 6.87 cents per thousand. For the year to February 28, 1909, 6.52 cents. For the ten months to December 31, 1909, 7.66 cents. Average for four years to December 31, 1909, 6.65 cents. The year ending December 31, 1910 7.22. Average for the five years to December 31, 1910, 6.78.

Q. You don't find any abnormal increase in the tax account?

A. No, the tax account appears to run quite normal.

3126 Q. Have you abstracted the books so far as the tax entries are concerned? Let me put that question in another way, the taxes that you have just stated, the totals are they shown by the books of the company just as you gave them?

A. Yes, subject to the throwing into this expense of the federal tax of 1910 and 11, we take that in as an expense under the head of taxes.

Q. Now leakage?

A. I find the average of leakage for five years 2.04 cents per thousand as compared to 1.35 cents for the year 1910 and 2.26 cents for the four years from 1906 to 1909.

Q. There was less of that kind of leakage in 1910 than usual?

A. Yes, things improved in 1910.

Q. Now take up your conclusion No. 2 and go through that for us if you will?

A. That conclusion stated on page 17 is a summary of the total repairs on the plant and distribution system covering the period of five years from December 31, 1910. The repairs for the two months to February 28, 1906 total 4.82 cents per thousand. For the year February 28, 1907, 4.88 cents per thousand. The year February 29, 1908, 4.61 cents. For the year February 28, 1909 4.45 cents. The ten months to December 31, 1909, 5.73 cents. Average for four

years to December 31, 1909, 4.89 cents. The year to December 31, 1910, 7.42. Average of five years to December 31st, 1910, 5.49 cents.

Q. That represents the total amount paid out for repairs during that period?

A. Yes, sir.

Q. You add something to that do you?

A. We add six cents per thousand in respect to depreciation.

3127 Q. For each year.

A. For each year, yes.

Q. That changes the totals just to that amount?

A. Yes, six cents greater.

Q. I wish you would explain to the Master just how that six cents works out on this investment as you have extended it up to this point?

A. Six cents per thousand cubic feet sold during the period from January 1, 1895 to December 31, 1910, would give an aggregate depreciation of \$245,862.00.

Q. You have a table at the bottom of page 17?

A. Yes, and the amount is in the middle of page 18, \$245,862 aggregate depreciation in the sixteen years.

Q. So the total depreciation in the years figured as you figure it at six cents per thousand cubic feet amounts to a total of \$245,862.

A. Yes, sir.

Q. And that was the amount that you used to arrive at the figure \$1,550,000 of investment?

A. Yes, sir.

COURT: You do not give the six cents a thousand cubic feet of gas in this table on page 18, you do not give the amount of gas manufactured do you?

A. I think I have it here somewhere.

COURT: I suppose dividing that by six would give it?

A. That gives the figures.

Q. You took the actual amount of gas manufactured each year?

A. Took the actual figure.

Q. Multiplied it by six cents?

A. Yes, sir.

3128 Q. That gave you the figures appearing for each year in this table and the final total \$245,862.00?

A. Yes, sir.

Q. That will be found in schedule 4 attached to this report, under general statistics schedule 4 for the years 1895 to 1910?

A. Yes, it is given there the seventh column from the left of the page would give it.

Q. That is the fourth one from the end?

A. Yes, schedule 4, the footing of that would give it.

Q. At any rate Mr. Hall, you took the actual sales as shown by the books of the company and used the figures.

A. Yes, sir.

Q. For the basis of these columns that total \$245,862.00?

A. Yes, sir.

Q. And you arrive at the total for each year by multiplying the sales of that year by six cents.

A. Yes, sir.

Q. Now I wish you would explain briefly the last column in that table beginning on page- 17 and 18?

A. That represents the percentage of the depreciation allowance to the investment of the company, to the investment in plant, physical property as at the close of that particular year. For example at the close of the year 1895 the depreciation allowance was equivalent to .0836 per cent of that figure. The allowance was calculated on the closing balance of each year, the last figure of the year irrespective of the fact that the additions only were in use for six months and no account was taken of any residual value at all or any real estate?

Q. If you had taken account of residual value and real estate what difference would that have made?

3129 A. It would have raised the percentage.

Q. Now if you will take up your conclusion No. 3 and work that out for us I would be obliged to you?

A. Conclusion No. 3 sets forth the estimated return to be earned on a basis of the actual expenses of the year 1910, on a basis of the actual manufacturing for 1910 and average distribution expenses for the four years 1906 to 1909 and third, on the actual manufacturing expenses of 1910, and the average distribution for the five years including 1910, including as an expense the depreciation.

Q. And how does it work out?

A. It works out on page 20 giving an estimated net revenue at actual manufacturing for the year 1910, and the distribution for the four years 1906 to 1910, including depreciation, an estimated net revenue of 27.28 cents per thousand feet sold. Assuming ninety cent gas in Des Moines and the usual Valley Junction rates. On the second table assuming the same revenue and the actual manufacturing expense for 1910 and the distribution based on the average for the years 1906 to 1910, including depreciation we have a net revenue available for interest of 25.53 cents per thousand feet sold. Stated in dollars and cents the first estimate, that is on the basis of the average distribution expense for 1906 to 1909 would give a net revenue of \$145,173.06.

Q. That appears on page 19?

A. Page 19. While under the second basis of five years' average including 1910 the average distribution gives a net revenue of \$135,863.22.

Q. Just a little under \$10,000 difference in the two estimates?

A. Yes, sir.

Q. Now conclusion No. 5.

3130 A. Deals with the investment in the property of the company and brings out after making a deduction for depreciation to investment brings \$1,550,766.58.

COURT: Did you take the working capital from the books?

A. Yes, sir.

Q. Now what did you include in that?

A. I included all the working assets representing cash on hand inventory of supplies and accounts receivable and deducted the accounts payable and accrued liabilities. That is the liability for bond

interest due and unpaid covering a few months. I refer to that in detail later on.

Q. This item of \$68,952.91 was that taken from the books of the company?

A. Yes, sir.

Q. That is the separate items that make up that total are shown on the books of the company?

A. Shown on the balance sheet December 31, 1910.

Q. And shown as working capital for that year?

A. Yes, sir. This statement brings out that investment as by the company's own books after deducting depreciation, that is money invested in physical property or working property.

Q. Now I wish you would go through that a little more in detail and work it out the same you have here in your report with such explanations as you care to make.

A. We started under the appraisal of January 1, 1895, and that appraisal amounted, that is physical property excluding any working assets amounted to \$429,426.83 and the company expended for additions between January 1, 1895 and December 31, 1910, \$1,133,248.84. They paid for the valley Junction property in \$45,000 in bonds. Added allowance for the gas holder not 3131 included in either set of books \$120,000.

COURT: Right there I want to get at something. On page 3, you make reference to a payment by delivery of bonds received of \$120,000. Now is that the \$120,000 which you refer to here?

A. No, sir; it is another additional \$120,000.

COURT: This \$120,000 was for the gas holder?

A. Perhaps I could explain it better in my own way. The Des Moines Company gave the Capital City Company \$285,000 in first mortgage bonds. \$45,000 of that \$285,000 covered the Valley Junction property. \$120,000 of this \$240,000 remaining was given by the Capital City Company to the U. G. I. in settlement of a debt of \$105,526.49.

COURT: What was that for?

A. For supplies sent by the U. G. I. and moneys advanced by the U. G. I. to the Capital City Company. That \$120,000 was in liquidation of a debt. The remaining \$120,000 of bonds plus \$800,000 preferred contracts, plus the capital stock of the Des Moines company was distributed by the Capital City company to its stockholders by way of dividends. That is the \$120,000. The question came up when this appraisal was made as to the holder being in the yard and not being on the books and the contention appears to be although it is not fully proven, that this \$120,000 of bonds instead of being distributed as dividends was handed to the U. G. I. company in payment of the holder, the other \$120,000.

Q. Carrying that a little further, if I understand the situation as you found it, substantially all of the physical property, the important part of it, can be found, can be traced into the books of either the Capital City Gas Light Company or Des Moines Gas Company, except this one holder?

3132 A. I only had the one holder not being in either set of books.

Q. And that holder is the one that you allowed and you figure out that probably the other \$120,000 of this \$240,000 was to wipe out that indebtedness or rather that credit if it had been on the books, or charged?

A. I understand through I think Mr. Curren comptroller of the U. G. I. that \$120,000 was in connection with the holder.

COURT: Mr. Douthirt testified there was \$120,000 paid for the holder if I understand it.

A. I confirmed the \$120,000 by asking Prof. Bemis if the holder was worth about \$120,000 and he said yes, just about the price of it so I passed up the \$120,000 on that basis.

Q. Now then if you will go on with your investment in plant and property.

A. The investment in the plant and property on the basis of this appraisal, subsequent additions Valley Junction property and the holder aggregate \$1,727,675.67. From that amount we deduct the allowance in respect to depreciation or being equivalent to the wear and tear of the plant, decrease in its value, \$245,862.00 leaving the depreciated value of the property at \$1,481,813.67.

Q. Then if I understand you at this point you took the total sales of the company for the five years and multiplied them by six to get the depreciation.

A. No, sir; I took the sales for the sixteen years and multiplied it by six. The question was asked a moment ago as to the total sales they were 4,097,700,000 in round figures for sixteen years, page 21.

Q. You multiplied that by six to get the depreciation?

A. Yes, sir.

3133 Q. That produced the figure \$1,481,813.67?

A. Yes, sir.

Q. And according to your investigation and examination represents the total amount invested in this property by all of these companies less your depreciation?

A. Yes, sir; accepting the appraisal as the start.

Q. Accepting Col. Pratt's appraisal back in 1895 as the start?

A. Yes, sir.

Q. And why did you do that?

A. That appears to be accepted by all parties at that time as being the price of the property or value of the property as appraised prepared by the company and it was the reasonable assumption that represented the actual facts at that time.

Q. Prepared it themselves?

A. Prepared it themselves and swore to it.

Q. Swore to it as the actual value?

A. Yes, sir.

Q. So you started with that?

A. I started with that, that being the cleanest point to commence.

Q. Does that appraisal appear here?

A. Yes, sir; the following table, page 21 gives a summary of that appraisal.

Q. Where did you get these figures?

A. From a copy of the appraisal on the record.

Q. I wish you would explain a little more fully what is covered by that table?

A. The main sections of the plant here as stated. Then the total investment in each section. The second column is the appraisal of January 1, 1895, the Pratt appraisal. The next column gives the total additions made to the plant subsequent to that date.
3134 The two last columns give the additions for the period January 1, 1895 to 1906 and the last column March 1, 1906 to December 31, 1910.

COURT: What does this total mean?

A. Means the total investment as \$1,727,673.67, represents the total of the appraisal value with subsequent additions. The second column is the appraisal of January 1, 1895, the Pratt appraisal.

COURT: These totals are your own figures?

A. My own figures, yes.

COURT: You don't know whether that appraisal represents book value at that time or not?

A. It does not.

COURT: That last column represents the addition between March 1, 1906 and December 31, 1910?

A. Yes, the additions made by the Des Moines Company, the present company.

COURT: The column next to that represents the additions made by what is known as the Capital City Company?

A. Yes, sir.

COURT: After 1895?

A. Yes, sir.

Q. And including 1895?

A. No, the second to the last column represents the additions from January 1, 1895 to February 28, 1906.

COURT: That includes 1895?

A. Includes 1895 yes, I misunderstood you.

MR. BYER: What does the first column include?

A. Represents the total of the plant now with the appraisal as the basis.

Q. And without the depreciation taken out?

3135 A. Without, yes.

Q. And without Valley Junction and without that holder?

A. No with both at the bottom of the page.

Q. When you get down to the bottom, but where you say total as on the books?

A. Yes, without the Valley Junction property and without the holder.

Q. And the second column is the appraisal made in January 1895?

A. Yes, sir.

Q. Which is included in these figures \$1,562,675.67 in the first column?

A. Yes, sir.

Q. That is, you do not mean that this table does not indicate that

the total cost as shown by the books was \$1,562,675.67 and then the appraisal of \$429,426.83 in addition, that is not what it means?

A. No. It means that the figure \$1,562,675.67 is the appraisal plus the subsequent additions.

Court: That is only physical property?

A. Physical property only.

Court: You did not take into consideration any expense of organization of the Des Moines Company?

A. No, sir.

Court: This simply gives the actual physical property as represented by investment?

A. Yes, sir.

Court: Shows the amount actually put into property.

A. Into tangible property.

Q. Represents all that was put in?

A. As shown by the books, yes.

3136 Court: You mean all if that appraisement is correct?

A. Assuming the appraisement to be correct at the commencement, yes.

Q. Of course I am assuming that all the time in these questions that that is correct. Now the property of the company as shown on the books, Mr. Hall, at the present time, the book entries, \$3,853,975.22 which is very greatly in excess of the amount that you say the books show was invested in the property assuming that the appraisal in 1895 was correct. How do you explain that and account for that excess?

A. Partly by the fact that the appraisal of January 1, 1895, was less than the books. Partly by the fact that in 1897 the value of the plant was arbitrarily run up by an appreciation and credit to surplus and finally by the transfer by the Capital City to the Des Moines company at a very considerable enhancement.

Q. I wish you would cover that a little more in detail?

A. The book value of the properties on December 31, 1910, was \$3,853,975.22. That figure was determined after taking out depreciation June 30, 1909, \$264,108.78. Adding these two figures together would reinstate the book cost of the Des Moines company to the sum of \$4,118,084.00. To determine the difference between that sum and the actual cost of the property as already referred to is made up by a difference of the book value at January 1, 1895, in excess of the original appraisal at that time referring especially to the water gas plant and patents shown on the books at \$200,000 and appraised at \$27,903.06.

Q. That is to say the company itself valued the property that had a book value of \$200,000 at \$27,903.06?

A. Yes, as I understand it the old company took over the water gas plant and issued bonds against it in the face value of \$200,000. The property at the time of this appraisal was entered at \$27,903.

3137 January 1, 1895, the construction account appeared on the books which represented stock issued without consideration another \$39,371.22. That made the book value January 1, 1895, \$211,468.16 in excess of the appraisal by Col. Pratt. During

the subsequent period to February 28, 1906, the capital account of the Capital City Company was charged with the cost of certain stocks in the Capital City Electric Light Company less dividends received a net figure of \$2,553 and also include a charge of \$131,744.44 an amount charged to plant account credit to profit and loss and subsequently distributed as stock dividend, \$300,000 was distributed as stock dividend May 1, 1897, and include this item. These two items make \$134,297.44. When we come down to the transfer of the Capital City Company to the Des Moines Company we find that there was an appreciation there of \$2,123,769.91.

Q. Now how did that come about, that appreciation?

A. Oh generally called water. They sold the property at a sum very considerably in excess of its book value at that time. The book value of the plant as appearing on the Des Moines Company's books of March 1, 1906, \$3,592,723.24 less the Valley Junction properties \$45,000 making a net value paid to the Capital City Gas Light Company \$3,547,723.24 against a value appearing on the Capital City books of \$1,423,953.33.

Q. That is to say the Des Moines Gas Company issued and changed its securities in the amount of \$3,547,723.24 for property of the Capital City Gas Light Company of the value of \$1,423,953.33.

A. Of the apparent value of \$1,423,953.33 because that value included the previous appreciations we have mentioned, that is a book value only.

Q. So that the actual value would be even less than \$1,423,953.

A. Yes, would be subject to a deduction of \$211,468.16 3138 and \$134,297.44 mostly making up that appreciation. Then to these three items amounting to \$2,469,535.51 I added the bond discount and reorganization expense charged to the plant on the Des Moines company books. That represents principally the discount on bonds sold \$40,872.82 making a total deduction of \$2,510,408.33 leaving the actual cost of the property as shown by the Des Moines company books, \$1,607,675.67.

Q. In other words, you found by your investigation and examination of the Des Moines Gas company books that there was \$2,510,408.33 in water?

A. Yes, sir.

COURT: That is up to the time of the organization of the Des Moines Gas Company?

A. Yes, sir.

COURT: Does that include up to the present time the extension?

A. No, sir; that is purely water or arbitrary additions without tangible value being represented.

Q. What does the \$1,607,000 represent?

A. That plus \$120,000 on the holder represents the total cost to this company up to this time beginning with the appraisal.

Q. Up to the 31st of December, 1910, or up to this time?

A. Up to December 31, 1910.

Q. When you add to this actual cost of the property \$1,607,675.67

the \$120,000 that you allow for the holder it brings the total cost up to your former figure \$1,727,675.67.

A. Yes, sir.

Q. And that represents the actual cost of the entire property without any deduction for depreciation?

A. Yes, and based on the appraisal.

Q. Based on the appraisal of 1895. Now you have stated 3139 this in another way on this same page 23. I wish you would explain that?

A. The appreciation on the transfer including the other appreciation amounted to \$2,510,408.33. The company itself wrote off on June 30, 1909, \$264,108.78 while we allow a value for the holder not included on either set of books namely \$120,000, take the two items from the appreciation of \$2,510,000 we have an appreciation excluded from the accounts of \$2,126,299.55. In other words the balance sheet of the company December 31, 1910, is \$2,126,299.55 in excess of the amount invested in the plant as we make it out.

Q. Now right at that point did you find or were you able to ascertain just why the amount \$264,108.78 was charged off for depreciation?

A. I don't know why it was done.

Q. Do you know how they got at those exact figures?

A. Yes, June 30, 1909, the amount credited to profit and loss account representing surplus earnings from March 1, 1906, to June 30, 1909, after paying all interest charges was \$264,108.78 and that figure was taken and transferred to the credit of plant account, the profit and loss account being closed up.

Q. In other words they took their surplus, what appeared to be surplus earnings and wiped it out by charging it up to depreciation?

A. Yes, sir.

COURT: Is that more or less than you figure the same account?

A. Oh very considerably more. That only covered a period of three years and four months.

Q. That would be the amount they would charge since 1906 would it not?

3140 A. From 1906 to June 30, 1909, they closed the account out at that date.

Q. Your depreciation account for the whole sixteen years was only \$245,000?

A. Yes, less for the sixteen years than they make for the three years.

Q. They wiped out more in the three years than you did the whole sixteen?

A. Yes, sir.

Q. It happened to be just the amount of surplus owned as shown by the books?

A. Yes, sir.

Q. Was there any other reason given for it to you by anyone for the company?

A. No.

Q. Has that item, that amount been included so far as you have been able to ascertain from the books in any of their statements?

A. Not as an expense, no.

Q. Well as depreciation?

A. Yes, the balance sheet shows that.

Q. But in the sworn statements they have made for the last two years and made since that depreciation charge appeared on the books has it appeared in any of those statements?

A. Not so far as I have seen them.

Q. I mean so far as you have been able to find?

A. No. Certainly has not appeared in the federal tax statement, be no tax to pay if it did.

Q. That would wipe out the tax?

A. Why yes. There would have been something coming back in that event.

3141 Q. They did pay federal tax?

A. Yes.

Q. Quite a considerable sum didn't they?

A. \$1237.00 or \$1287 for the year 1910. \$1287 for the year 1910.

Q. And if they had regarded this \$264,108.00.78 as a legitimate entry on their books they would not have paid any such sum.

Objected to as argumentative and clearly incompetent, it is not for the witness to say if they regarded this as a legitimate entry or what they would have done if they has so regarded it.

Q. I will put it in another way. If such a charge appeared upon the books of this company at the time the sworn statement to the federal government was made with respect to the income and revenue of that company does the federal statute require that amount to be stated, the depreciation amount to be stated in the blank.

Objected to as clearly incompetent because the federal statute speaks for itself and the witness is not competent to interpret it.

A. The federal statement provides for any depreciation charged as an operating expense being deducted from the net revenue of the company before paying tax.

Court: Depreciation for that year?

A. The depreciation applicable to the year being reported on, yes.

Q. So when you found a federal tax for the year 1909, paid for the year 1909, and then found this charge for depreciation you were put upon inquiry were you not and made some inquiry about it?

A. I figured the matter out roughly for myself to ascertain if this had been included as an operating expense.

Q. Have you been able to figure out any method of depreciation that would bring about any such item as you find on the books there for those three and a half years?

3142 A. No.

Here the further hearing was adjourned until 9:30 A. M. tomorrow.

3143

Wednesday Forenoon Session.

SEPTEMBER 13, 1911—at 9:30 A. M.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JAMES HALL, continuing his direct examination, examined by H. W. Byers, Esq., testified:

The MASTER: Before we begin the further examination of this witness, there are some matters here with reference to these books that I wish to have cleared up. On page 5 of Exhibit 23 I find a table of Mr. Hagenah that shows the book value of this property \$1,928,016.65. The basis for that is the alleged book value on June 30, 1886 \$295,383.08; adding to that the extensions in various ways up to and including January 1st, as I understand it, I find that up to that time it would amount to \$470,173.66. That brings it up to the date now that you begin the valuation and that only makes a difference in your basis of \$40,746.83. I find the total difference in the final results of the book value between the two experts is \$200,340.98, making a difference in round numbers of \$160,000, or about that. Now I would like to know why that difference. It ought not to exist; if your experts can explain that, I would like to have it done.

Mr. BYERS: Mr. Hall can explain that.

The MASTER: All right, I want it explained in order to get at it right.

The WITNESS: I can explain that, I think. In the year ended February 28, 1907, Mr. Hagenah enters the extensions total at \$418,914.28. That figure includes the \$120,000 paid to the United Gas Improvement Company in settlement of the old debt of \$105,000.

3144 The MASTER: That includes the \$120,000?

A. Yes, sir. In other words, Mr. Hagenah entered as extension \$285,000 bonds issued at the time of the reorganization of the Company, while we only included \$165,000, excluding as an extension \$120,000 covered in settlement of the old company obligation.

The MASTER: Now just make the figures here showing the difference.

A. I have stated the figures in even thousand dollars.

The MASTER: I got it \$200,340.98. Please see whether that is right.

A. That is correct.

The MASTER: Then the difference is \$200,340.98. I wish you would take down the amounts as I read them: \$295,383.08; \$13,393.52; \$30,588.09; \$11,605.55; \$7,462.52; \$32,565.24; \$68,402.36; \$5,615.02; \$5,157.27. Now add that, please.

A. \$470,173.66.

The MASTER: That is what I have it. Now, Mr. Hagenah, I want to see if I got that correct; that will bring it up to ninety-four. Now should that minus quantity be taken out?

Mr. HAGENAH: Yes, sir.

The MASTER: That should be taken out for 1894?

Mr. HAGENAH: Yes, sir.

The MASTER: Now take from it \$149.32.

The WITNESS: \$470,024.34.

The MASTER: Your basis now is *is* \$429,426.83?

A. \$429,426.83.

The MASTER: I wish you would see what the difference is?

A. \$40,597.51.

The MASTER: That is what I have it now. That makes a
3145 difference then in the basis of \$40,597.51?

A. Yes, sir.

The MASTER: Now take that from the two hundred.

A. I have just the figures to the even cents now and the difference
is \$201,470.33, made up of the difference of the bonds and the bond
discounts; and the unexplained difference is \$1,129.35——

Mr. BYERS: Explain that now.

A. The construction on Complainant's Exhibit 23 is \$1,928,-
016.65. The construction on Defendants' Exhibit 30 is \$1,727,-
675.67. Complainant's Exhibit being in excess of defendants'
\$200,340.98. That is partly explained by the difference on January
1, 1895, between the accounts taken from the books \$470,024.34
accepted by the complainant, and the Pratt appraisal accepted by the
defendant \$429,426.83, a difference of \$40,597.51. Adding to that
the bonds paid to the United Gas Improvement Company by the
Capital City Company in settlement of the open account March 1,
1906, \$120,000; add to that the bond discount and reorganization
expenses for the period from 1906 to 1910, \$40,842.82, making a
total of \$201,470.33. The other exhibit gives \$200,340.98, and
there is an unexplained difference of \$1,129.35.

The MASTER: Between your Exhibit No. 30 and the Complain-
ant's Exhibit No. 23?

A. Yes.

The MASTER: That is all I wanted to know. You might just make
that sheet of paper having the figures an exhibit.

Mr. GUERNSEY: Have it copied into the record.

The MASTER: Yes, mark it as an exhibit and copy it.

The paper is marked Defendants' Exhibit 32, and is as follows:

3146

"DEFENDANTS' EXHIBIT 32.

Opening difference at January 1, 1895.....	\$40,000.
Exclusive of amount paid to United Gas Improvement Company in settlement of open account at March 1, 1906	120,000.
Total bond discounts and organization expenses excluded 1906-1910	41,000.

\$201,000

1,928,016.65

1,727,675.67

200,340.98

295,383.08

13,393.52

30,588.09

11,606.56

7,462.52

32,565.24

68,402.36

5,615.02

5,157.27

470,173.66

149.32

470,024.34

429,426.83

40,597.51

40,597.51 opening difference
120,000. bonds
40,872.82 bond discount

201,470.33

200,340.98

1,129.35 difference unexplained."

Mr. BYERS: Now, Mr. Hall, resuming the examination where we left off last night, I believe we were at page 24. With respect to that \$120,000 which you allowed for the holder there, did you have any conversation with any of the officers of the Company with respect to that holder?

A. Yes.

Q. And with whom was that conversation?

A. Mr. Curran, Comptroller of the United Gas Improvement Company.

3147 Q. What explanation did he give you?

Objected to on part of complainant as being incompetent, because it does not appear that Mr. Curran had any authority to represent the complainant or that he was an officer of the complainant or connected with it in any way.

A. I got no explanation beyond the statement that the holder was there and the records in Philadelphia.

Q. Now, in that connection, Mr. Hall, did you find anything among the books and papers of the Company that gave you any information with respect to the holder, or the cost of it?

A. Nothing at all.

Q. Or any direction to make any charge on the books with respect to it?

A. Nothing; no sir.

Q. Or any authorization for its construction?

A. I saw nothing at all, sir.

Q. Now the assets turned over as shown by the books of the Company you stated yesterday was \$3,334,000 and were made up of what items?

A. 22,490 shares of capital stock, par value \$2,249,000; first mortgage 5% bonds \$285,000; preferred stock contracts \$800,000; total \$3,334,000.

Q. How were those assets or securities disposed of by the Capital City Gas Light Company?

A. May I answer further on the last question.

Q. Yes, sir.

A. The property handed over had a mortgage of \$400,000 which was assumed by the Des Moines Company, making the total face value of the plant \$3,734,000.

3148 The MASTER: Right there, was there interest accrued on the bonds at that time?

A. My recollection is no—yes sir, there was \$4,000.

The MASTER: I mean on the Capital City bonds?

A. Yes, sir; \$4,000. Answering your next question, the consideration received by the Capital City Company was in part paid, for the Valley Junction property \$45,000 bonds out of the \$285,000 being given to Mr. Haines and Mr. Keffer. \$120,000 of the remaining \$240,000 bonds was handed over to the United Gas Improvement Company in settlement of a debt of \$105,526.49; the balance \$3,169,000 made up of the remaining bonds, \$120,000, preferred stock contracts \$800,000 and the capital stock \$2,249,000, was according to a general entry on the books of the Capital City Company disposed of as follows: Dividend in liquidation distributed pro rata to the stockholders of this company in the securities of the Des Moines Gas Company these 22,490 shares of capital stock; \$120,000 first mortgage gold bonds, \$800,000 preferred stock contracts, as authorized by the board of directors at a meeting held February 28, 1906, at three o'clock P. M.

Q. Now, at that time, or about that time, did you find anything in the books of either Company that would furnish us any better explanation of the holder and the other \$120,000 than you have already given us?

A. No.

Q. Now, Mr. Hall, on the next page, you refer to an appreciation of \$131,744.44 included in the plant account dated May 1st, 1897; I wish you would explain that?

A. The capital stock of the Capital City Company at that time amount- to \$300,000. The accumulated profit- subsequent to 3149 1886 and up to that time were \$168,255.51. To that amount there was added an appreciation of \$131,744.44, to bring the balance of the credit or surplus account up to \$300,000. A stock dividend was then declared of \$300,000 to the stockholders.

Q. In other words, \$131,744.44 was added to the assets, book assets, to cover the depreciation of the property during the period covered by the entry and added to the surplus profits to make the book entry balance with the \$300,000 additional stock that was then issued?

A. Yes.

Q. And distributed to the stockholders as a stock dividend?

A. Yes.

Q. That then would bring the capital stock of the Capital City Gas Light Company on that day up to \$600,000?

A. Yes, sir.

Q. Is that what the books show with respect to that matter?

A. Yes.

Q. Just as you stated?

A. Yes, sir.

Q. Now, yesterday you said something about depreciation that was charged off in 1909. I wish you would state now just what the books show with reference to that \$264,108.78.

A. The \$264,108.78 represented the accumulated profits after paying interest and dividends on preferred stock contracts from March 1, 1906, to June 30, 1909, and was transferred from the credit or profit and loss account, to the credit of the property and plant account as of the latter date, June 30, 1909.

Q. Do you have now before you a memoranda showing just the entries as they appear on the books?

A. Yes.

3150 Q. I wish you would read them into the record.

A. In Journal 2, page 244-A, an inserted page, there are two entries dealing with the matter.

Q. Under what date and between what date?

A. June 30, 1909. The first entry is charging accrued profits covering the period of March 1, 1909, to June 30, 1909, and crediting the profit and loss account with \$29,656.72.

Mr. GUERNSEY: The witness was asked to state what the books show. The books don't show what you say; the word "charging" is not there, and it don't say accrued profits.

A. Yes, sir.

Mr. GUERNSEY: I have no objection to him stating it in his own way, but it ought not to appear that he is reading a copy from the book.

A. The explanation given to this entry is: "For accrued profits from March 1, 1909, to June 30, 1909," another entry follows that

charging the profit and loss account \$264,108.78 and crediting the property and plant account \$264,108.78. The explanation given is "to close balance of account."

Q. Now, did you find anything there among the books and papers of the Company explaining how that entry comes to be inserted in the books as of June 30th?

A. Yes.

Q. The entry was not made at that time, was it?

A. No, it was made under instructions by the Philadelphia office under date of December 2, 1909.

Q. Did you read those instructions?

A. Yes, sir.

Q. State them.

A. Quoting from the letter addressed to Mr. Jansen Haines 3151 and signed by E. L. Brundrett, and headed, "Re-Journal entries", the letter reads: "I enclose herewith Journal entries which should be spread on your books under date of June 30, 1909.

If there is no blank space in your Journal in which you can enter these entries you can please insert a page which I am sending you in the proper place and post to your Ledger under date of June 30, interlining if necessary to get the posting under that date." Those are the two paragraphs.

Q. What is the date of the letter?

A. December 2, 1909.

Q. So that from your examination of the books, what do you have to say as to whether the page that you found there in the books was made up here or in Philadelphia?

A. It appears to be made up in Philadelphia; it was an inserted page.

Q. Now yesterday, while we were dealing with this same item, \$264,108.78, the Master asked you something about the salaries account and you gave some testimony with respect to that. I wish you would cover that again.

A. In regard to the Philadelphia salaries?

Q. Yes, if there is any correction you want to make.

A. I find the salary checks and vouchers are made out in the treasurer's office in Philadelphia and sent here for signature, and after signature returned to Philadelphia and endorsed by the officials there and the money collected. The vouchers are all retained in Philadelphia. The checks are not made out here but a Journal entry is made on the books charging the salaries and crediting the treasurer's account.

Q. So the whole matter is a matter of book entries so far as the books here are concerned?

3152 A. Altogether, yes.

The MASTER: That is different from what you stated yesterday.

A. I made the statement yesterday that the officials here made out the checks, but they are made out in Philadelphia.

Q. Now, there was something said yesterday about the federal tax. Have you made some investigation of that since yesterday?

A. Yes.

Q. I wish you would state into the record just what the books show with respect to the federal tax and how the account would figure out.

A. The books show in 1911 a federal tax covering the fiscal year 1910 was paid on \$128,737.13; at 1% that tax is \$1,287.37.

Q. You found the item of \$1,287.37 in the books, did you?

A. Yes, sir; in 1911.

The MASTER: What was that paid on?

A. \$128,737.13.

The MASTER: That was the net?

A. The net earnings.

Q. You made out a statement showing how that figures out from the books?

A. I took their own statement and endeavored to figure it out.

Q. State it into the record as you figured it out.

A. The income account prepared by the Company shows that after charging all interest and dividends on preferred stock contracts, a balance of \$106,406.36. To get at the taxable income you have got to *right* back dividends paid on preferred stock contracts, amounting to \$27,330.77, leaving a net income for charging dividends of \$133,737.13. The government provides a statutory allowance of \$5,000 which I have deducted, leaving a net balance of \$128,737.13.

3153 Q. So that the charge on the books of \$1,287.37 tests out with their book entry as to the net income, after charging interest and dividends on preferred stock contracts?

A. After charging interest on bonded and floating indebtedness, but before charging indebtedness, it checks out.

Q. Now, did you cover 1910 in the same way?

A. That is 1910.

Q. I mean 1909?

A. Yes, I endeavored to check out 1909. I couldn't do so exactly on account of the broken period reported in ten months, to December 31, 1909.

Q. Now, the 1909 federal tax, as you have it figured out, as near as you can get at it, how does it test out?

A. The actual tax paid was on the sum of \$144,760.85. At 1% that is \$1,447.61. I might explain, that was paid under protest. As near as I can figure their earnings that year were \$134,599.94, equivalent to a tax of \$1,346. I had to accept as a basis a ten month period to December 31, 1909, and add back one-fifth of that. The difference is explained in the January and February months, being more than one-fifth.

Q. The way you figured it out, using ten months as the basis, the net income over and above the \$5,000 exemption, would be \$139,599.94?

A. Yes.

Q. And the net income upon which the taxes were figured, as you did, on the basis of the ten month-, was \$134,599.94, instead of \$144,760.87, on which they actually paid taxes?

A. Yes.

The MASTER: Why do you add one-fifth there?

A. The period reported was ten month- and we added one-fifth to bring up the calendar year.

The MASTER: You could not ascertain that amount?

A. I might if I spent some time on it. I have no doubt if the two months were checked out against the ten, it would run out very closely.

Q. Now, Mr. Hall, you were to get me a statement of the extra expense we were talking about yesterday in the way of donations and subscriptions. Did you get that for me?

A. Yes.

Q. I wish you would state into the record just what the books show with reference to these matters, the items and amounts and the dates.

A. For the period of ten months before December 31, 1910, the extra expense amounted to \$3,392.36 and covered subscriptions to the Commercial Club, \$265.; to the Y. M. C. A. \$100. Material supplied to the Y. M. C. A. \$205.25; subscription to the Methodist Hospital \$100; to the Greater Des Moines Committee \$1,500; to the Coliseum Company, capital stock, \$500; to Mr. Haines for Christmas gifts to the staff \$655; and for sundries including Mr. Haines' extra expenses \$67.11. Total \$3,392.36. I would like to explain that yesterday I stated that the Christmas gift went to Mr. Haines; that was a mistake; it should be to the staff; he acted as an intermediary.

For the year ending December 1910 the Commercial Club subscription was \$200; the Y. M. C. A. \$100; Methodist Hospital \$100; Greater Des Moines Committee \$2,225; Mercy Hospital \$400; Christmas gifts to the staff \$711; Roadside Settlement \$50; sundries \$178.78. Total \$3,964.78.

Q. There was no other explanation to the item of sundries?

A. It included Mr. Haines' extra expenses.

3155 Q. Now, this \$264,108.78 in that letter that was sent here with the entries that the local managers were directed to place in the books, was there anything in these books here from which you could check up without much trouble the accuracy of the items of credit charged that was in that letter?

A. The method of making up the amount is not clear.

Q. In order to get the final word with respect to these charges where would it be necessary to look for them?

A. At Philadelphia.

Q. In the books of the Philadelphia office?

A. Well, I don't know; the books or the author of the letter would probably know.

Q. There is nothing here to indicate it?

A. There is nothing here to indicate the reasoning in making it up at all.

The MASTER: In your calculations were these items here rejected?

A. No, sir; I included those as expense.

The MASTER: You also included the federal tax?

A. Yes.

Q. I wish you would explain the working capital item in your statement as you have already put it into the record, just how you arrived at the amount of \$68,952.91.

A. In arriving at the amount of working capital, we first determine the amount of actual capital involved for all purposes, including the fixed property and work from that. The result is that the deduction of all current and accrued liabilities would bring out a net balance available for working capital.

Q. Is that the proper method?

A. Well I don't know that there is any proper method.
3156 To my knowledge, there has no definition ever been made of working capital or any method by which you can get at it.

Q. Now state how you arrived at the item \$68,952.91.

A. I took all the current assets, including account- receivable, inventories, cash on hand, and from that deducted the outstanding liabilities, notes payable—

Q. State the figures as you work it out.

A. The current working assets made up of materials and supplies \$77,410.46; accounts receivable \$51,858.54; cash in bank and in hand \$49,434.15; insurance paid in advance \$905.20; or the total working assets \$179,608.35. From that figure deduct the bills and accounts payable amounting to \$51,838.37, and the accrued taxes and interest \$58,817.07, a total deduction of \$110,655.44, leaving a balance of net current assets of \$68,952.91.

Q. Which you designate as the working capital?

A. Yes; that is the actual amount in the business over and above what they have invested in their plant property.

Q. Well, what do you have to say whether or not that would be a reasonable amount for this concern?

A. It seems to me to be about reasonable.

Q. Would you allow any more?

A. That seems to be ample, looking at the balance sheet.

Q. Do you make that statement having in view what you have observed with respect to the business as shown by the books in the past?

A. Yes, and generally my knowledge of the requirements of all business for working capital.

Q. In these deductions why did you deduct the bills and accounts payable?

A. The bills is an honor demand note and will be met out
3157 of the funds on hand.

Q. I notice quite a little difference between the amount you allowed as working capital and the amount Mr. Hagenah allowed?

A. I think the difference is explained. I have deducted the accrued interest and he has not. If you take this balance sheet and take the date after the payment of taxes and interest, you will find the cash is correspondingly reduced and no liability appears.

Q. You have also taken out the bills and accounts payable?

A. Yes, sir; those are proper deductions.

Q. The accounts payable were not deducted by Mr. Hagenah and that with the accrued interest would account for the difference?

A. Yes. I will say this, these long time bills issued for construc-

tion purposes there would be a justification for excluding them; you cannot lay down any hard and fast rule on it.

Q. The method you adopted here and the amount you allow for working capital in this particular case, you say is reasonable, and all they ought to be allowed?

A. It seems to me quite reasonable, yes.

Q. Now this balance sheet on page 27, I wish you would make whatever explanation with respect to that you want to make and state it in the record.

A. This balance sheet differs from the books of December 31, 1910, to the extent, we reverse for this purpose the entry of depreciation or charge off made June 30, 1909. The fixed assets are \$4,118,084, representing the cost to the Des Moines Company of these properties.

Q. In securities?

A. In securities. The current and working assets are \$178,703.15. The charges deferred to future operations representing insurance paid in advance amount to \$905.20. Total assets \$4,297,692.35. That is represented by capital stock \$2,250,000. Preferred stock contract \$411,000, and first mortgage gold bond \$1,097,000, giving a total fixed liabilities \$3,758,000. Current liabilities are \$51,838.37. The accrued liabilities are \$58,817.07; and the surplus before charging off what I term depreciation is \$429,036.91. The total being \$4,297,692.35. The balance sheet at March 1, 1906, has fixed assets of \$3,592,723.24, or \$525,360.66 less than December 31, 1910. The capital working assets March 1, 1906, amount to \$179,527.03, or \$823.88 more than December 31, 1910. The charges deferred to future operations March 1, 1906, amount to \$993.38 or \$88.18 more than December 31, 1910. Total assets March 1, 1906, are \$3,773,243.65 or \$524,448.70 less than December 31, 1910. The capital stock March 1, 1906, amounted to \$2,249,000 or \$1,000 less than December 31, 1910. The preferred stock contracts amounted to \$800,000 or \$389,000 more than December 31, 1910.

Q. Which means that the difference between \$389,000 and the \$800,000 are still outstanding?

A. Yes, sir.

Q. The others have been taken up?

A. Yes. The first mortgage gold bonds outstanding March 1, 1906, amounted to \$685,000 consisting of \$400,000 Capital City bonds \$285,000 Des Moines Company bonds. These bonds are \$412,000 less than December 31, 1910. The current liabilities March 1, 1906, were \$18,227.80 or \$33,610.57 less than 1910. The accrued liabilities amounted to \$21,015.85 or \$37,801.22 less than December 1910. There was no surplus account March 1, 1906. The total liabilities at that time were \$3,773,243.65.

3159 Q. Now in your capital account, the items that make up \$77,410.46 include what particular property?

A. They are represented by stock of tar, gas, fuel, oil, etc.

Q. And a table of that is shown on pages 27 and 28 of Exhibit 30?

A. Yes.

Q. The surplus account showing the credit balance \$429,036.91. What does that represent?

A. That represents an adjustment of the surplus accounts shown by the books of the company, and with the statement submitted by me now shows a credit balance on the company's books of \$429,036.91.

Q. What relation if any does it have to the accumulated income?

A. That is the accumulated income.

Q. For what period?

A. From March 1, 1906, to December 31, 1910.

Q. For a period of four years and ten months?

A. Yes, sir.

Q. Is that before or after deducting interest?

A. After deducting interest and dividends on preferred stock contracts.

Q. In other words, that is the net surplus accumulated income for that period?

A. Yes.

Q. And is made up of what items?

A. The net income for the year February 28, 1907, \$49,454.76. For the year February 29, 1908, the net income is \$77,739.26. For the year February 28, 1909, \$107,017.04. For the ten months to December 31, 1909, \$87,305.06. For the year ending December 31, 1910, \$112,168.60. Being a total income of \$433,684.72. 3160 Deduct from that the tax omitted by the Company, charged by us, \$1,287.37.

Q. That is the federal tax?

A. Yes, for 1910.

Q. I wish you would explain the net income a little further.

A. The net income of the Company was ascertained after charging interest on the bonded debt and dividends on preferred stock contract, but before making any charge covering depreciation of the property.

The MASTER: That is from the time the Des Moines Company took it?

A. Yes.

The MASTER: \$429,036.91?

A. Yes.

The MASTER: That is the total net income during that entire period?

A. Yes, sir; subject to the fact that no depreciation was taken out.

Q. Now, how does the bond account, preferred stock account compare with your ascertained cost of physical property?

A. At March 1, 1906?

Q. Yes, and now, December 31, 1910?

A. Taking March 1, 1906, we first find the book value of the Capital City plant February 28, 1906, \$1,565,230.09. Deduct the appreciation of 1897, \$131,000, and the assets omitted from the appraisal of 1895, \$211,000, and we have a deduction of \$345,765.60 which leaves a net book value of \$1,219,464.49. Add to that the

estimated cost of the gas holder, \$120,000, and the Valley Junction properties, \$45,000, would give an actual cost February 28, 1906, of \$1,384,464.49. That was represented by Capital City Company bonds \$400,000, from which I have deducted the water gas 3161 set abandoned, \$211,468.16, leaving net \$188,531.84. Add

Des Moines Company bonds paid for the gas holder and Valley Junction properties \$120,000. Add liability to the United Gas Improvement Company paid by the issue of \$120,000, \$105,526.49. Add surplus earnings from 1886 to 1906, \$627,959.16. Add capital stock issued in 1886, \$300,000. Deduct the small charge of electric company stock charged to plant and now eliminated \$2,553, and we have the same result \$1,384,464.49. This appears to have been taken over for the original Capital City Company bonds, \$400,000, and the Des Moines Company bonds \$165,000, and the additional Des Moines Company bonds \$120,000 and the total issue of \$285,000 issued at the time of the reorganization, and the preferred stock contracts \$800,000, the total being \$1,485,000 excluding altogether capital stock.

The MASTER: The interest added to that would make it \$1,489,000?

A. Yes, the interest is all taken into account. That makes a par value for these securities of \$100,535.51 in excess of what would appear to have been the value of the plant.

Q. In other words, that would indicate that the total cost of the plant had been paid for out of these securities?

A. Yes.

Q. Now as to December 31, 1910, what does it show?

A. In regard to December 31, 1910, the plant was increased by \$525,360.76, the additions to the plant account appearing in the balance sheet for the period to December 31, 1910, amounted to \$525,360.76. Of that amount \$484,487.94 represented actual additions to the physical property; \$40,872.82 discount on bonds and similar charges. Against the \$484,487.94 the Company has issued further bonds amounting to \$412,000.

3162 The MASTER: Where do you find that?

A. Partly on page 21 and partly on page 27; the balance sheet is on page 27.

Q. I have not followed you with the figures, but in a general way, if I understand you, the actual additions to the plant since 1906 up to December 31, 1910, amount in round numbers to about \$70,000 more than the bonds issued and sold during that time?

A. Yes, sir.

Q. Do the figures you give represent the face of the bonds or the amount received for the bonds?

A. The face of the bonds.

Q. Was the difference as much as \$70,000, was there any change in the value of those securities during that time?

A. I am sorry, I don't understand the question.

Q. I don't know whether I do. How much of a reduction was there in the preferred stock contracts during that period?

A. \$389,000.

Q. How do the books indicate that difference was accounted for or taken care of?

A. Partly made out of the surplus earnings.

Q. Or profit?

A. In part.

Q. Is there anything on the books here in Des Moines that indicates any actual money was put into this property during those years other than the earnings and the receipts from bond issues and bond sales?

A. That is all.

Q. Now on the bottom of page 28 and continuing to page 29 you have worked out an annual estimate, and I wish you would explain that to the Master as fully as it needs to be?

3163 A. That statement is one of the estimated investment in the plant commencing with the appraisal of 1895, and adding an allowance in that year and in all subsequent years of \$50,000 for working capital and adding the additions made during each year. The third column states the per cent that revenue bears to the investment. The fourth column shows the total revenue on the Company's books. The fifth and last column covers the operating expenses, together with an allowance for depreciation.

Q. And what is your average net result of that method?

A. The average result of the average investment shows a return of 9.56 per cent.

Q. Just take one of those years and work through it, if you please, take December 31, 1895, and explain how you work in your \$50,000.

A. The investment on December 31, 1895 is made up of the appraisal of Col. Pratt, amounting to \$429,426. To that I add \$50,000 covering working capital, and the additions amounting to between \$4,000 and \$5,000, made during the year 1895, the total bringing out an investment, less depreciation for that year, of \$484,664. After taking out six cents for depreciation the net revenue for that year was \$36,351.

The MASTER: Six cents on every thousand cubic feet of gas?

A. Yes.

Q. The amount is covered by the preceding page?

A. Yes. \$36,351. is the net revenue after taking out in addition to all the Company took out six cents for every thousand cubic feet of gas sold.

Q. In the next column, 7.50, that shows the per cent of return on the amount as you worked it out with your \$50,000 capital added?

3164 A. Yes.

Q. Upon the actual operations as shown by the books of the Company for that year or period?

A. Yes.

Q. The only change and the only adjustment you made was to add \$50,000 for working capital and deduct from the net revenue your six cents per thousand cubic feet of gas sold for depreciation?

A. Also deducted from the investment the amount of depreciation

added to the expenses. In other words, where I charge operations with an allowance for depreciation, a corresponding credit was made on the investment.

Q. That is proper, is it?

A. Entirely.

Q. You added, I believe, some additions, \$2,000 or something like that?

A. In all cases I added the additions, whatever they were.

Q. Why did you allow for that year \$50,000 capital; what was your idea about that?

A. \$50,000 is simply an arbitrary allowance throughout the table.

Q. Was it your judgment that was a reasonable allowance for that time?

A. I know that was a good liberal figure.

Q. And this table was worked out through all the rest of the years in the same way?

A. Yes.

Q. And represents the books, except that you have added this \$50,000 and allowed a depreciation of six cents per thousand cubic feet for gas?

A. Yes; in the last year, the entry carried a working capital, as already shown, of \$68,000.

3165 Q. That you added for the last year?

A. Yes.

Q. With that added for the last year, it gave you a return, if I understand your table, on the total investment for the year 1910, figured out under this method, of a little over ten per cent.

A. 10.33 per cent.

Q. Now if you had accepted the Company's books, the figures just as they appear upon the records and without any depreciation entered as I understand you, would the rate of return have been higher than your figures?

A. Yes.

Q. How much?

A. 11.12 per cent or .79 per cent higher than I gave it.

Q. Which would make 11.12 per cent?

A. Yes.

Q. Turning to page 30, now Mr. Hall, did you ascertain from the books of the Capital City Gas Company or from any other record just when the United Gas Improvement Company acquired control of the Capital City Company?

A. July 1, 1886.

Q. How long did it operate the company under the name of the Capital City Gas Company?

A. Until February 28, 1906.

Q. I wish you would state into the record what the books of the Capital City Gas Light Company for the period from July 1, 1886 to July 1906 show with reference to the net income or surplus available for stockholders after payment of all interest charges?

A. For the entire period from July 1, 1886, to February 28, 1906,

the net income after payment of all interest charges appears 3166 to be \$640,709.16. That amount is divisible between the periods from July 1, 1886, to December 31, 1896, and which earned \$181,005.56. The period from January 1897 to February 28 1906 during which period they earned \$459,703.60.

Q. How was this surplus disposed of?

A. The first surplus \$181,005.56 was disposed of in part by payment of dividend April 30, 1888, of $4\frac{1}{4}$ per cent, equivalent to \$12,750. That left a net undivided income of \$168,255.56, which was in part applied in payment of stock dividends.

Q. Now that \$300,000 the increase of the stock of the Capital City Gas Light Company was made about January 1, 1897?

A. Yes.

Q. And at that time the United Gas Improvement Company was the owner of the stock of the Capital City Gas Light Company?

A. As I understand it, yes.

Q. And this surplus, or the accumulated profits from January 1, 1897 to February 28, 1906, what did that amount to?

A. \$459,703.60.

Q. At the time just prior to the transfer, how did that item appear, if at all on the books of the Company?

A. Appeared as a credit or surplus of the profit and loss account.

Q. Now you summarized that income before charging the depreciation on page 31. I wish you would explain that, if it needs any explanation?

A. The surplus income for the period of July 1, 1886, to December 31, 1896, amounted to \$181,005.56. For the period of January 1, 1897, to February 28, 1906, it amounted to \$459,703.60. For the period from March 1, 1906, to December 31, 1910, it amounted to \$433,684.72. The total was \$1,074,393.88.

Q. I understand that figure to represent the income of the 3167 Company the net income of the company, from July 1, 1886, to December 31, 1910, after meeting all interest charges, but without any depreciation?

A. Yes, sir.

Q. Is that correct?

A. Yes, sir.

Q. Now, as to accident claims, if any, did you consider them and how did you consider them as affecting the situation of this property as you tried to cover it in your investigation?

A. I am advised at the present time there are several accident claims outstanding against the company subject to litigation. No figure has been placed on them.

Q. You set them out on page 31 of your report?

A. Yes.

Q. Following page 32 of your report, I find inserted a sheet; I wish you would explain what that is?

A. That is a chart of the profits as shown on page 29 of this report.

Q. Explain to the Master the method of preparing the sheet and what may be ascertained from it?

A. This statement shows the period from 1895 to 1910. On the left hand column the amounts may be taken to represent the sales of gas in thousand cubic feet or dollars. On the right hand column is shown the percentage of the net revenue of investment as set forth on the page. This table shows an estimated investment less depreciation and shows the revenue from the sale of gas stated in dollars and thousand cubic feet, including an allowance of six cents for depreciation, while the dotted line represents the percentage of the net revenue to the investment.

Q. Now take that sheet, and the first line from the bottom, 3168 beginning opposite the figures 50,000 in the left hand column and running up into the right side of the sheet to the figures 3.7, what does that represent?

A. That represents the operating expenses including allowance for depreciation.

Mr. GUERNSEY: That is operating expenses in what?

A. The operating expenses including all interest—

Mr. GUERNSEY: But designated in what day?

A. By dollars.

Q. The 50,000 represents the dollars?

A. Or cubic feet as the case may be. In this particular line, the operating expenses of this is the year 1895 and appear to be about \$57,000; while in the last year they would run up to \$378,000 about.

Q. And the second line, beginning opposite 60,000 and running up to opposite the figures 5.3 on the right hand side, what does that represent?

A. That represents the gas sales in thousand cubic feet. The first year that appeared to have been 61 million feet, while in the last year they run up to 531 or 532 million feet.

Q. And the short line beginning opposite the figures 90,000?

A. That represents the revenues stated on a basis of dollars.

Q. What if any significance is there in the apparent widening of the space between those first two lines as you go up?

A. Considerable dumping in of expense in the year- 1909 and 1910, especially 1910, the ratio of the sales appears to have been narrowed down.

Q. The years are shown across the bottom of the sheet?

A. Yes.

Q. What significance, if any, is there in the apparent 3169 widening of the space between the first and third lines?

A. The widening would indicate there is a larger profit to be added, and where they pull together it is smaller.

Q. Now, Exhibit A, attached to your report, explain briefly what that is and what it shows.

A. It is an income and profit and loss account covering the period from January 1, 1906, to December 31, 1910.

Q. The first six columns show the revenue for the several periods covered by the sheet; the last two columns, the second from the end shows the total for four years up to December 31, 1909; and the last column the total for the five years which would include ending December 31, 1910?

A. Yes, sir.

Q. And is merely a detailed statement or summary of the figures that you cover in your report as we have gone over it?

A. Yes.

Q. Now I wish you would state briefly what Exhibit B is and make such explanations as are necessary to make it clear.

A. Exhibit B is an income profit and loss account covering the period of January 1, 1906, to December 31, 1910, stated in cents per thousand cubic feet sold; it is a summary on that basis of Exhibit A.

Q. That is a similar table to the one covered by Exhibit A, except this is worked out in cents per thousand cubic feet?

A. Yes.

Q. Exhibit A is continued on the second page and covers interest on floating debt and interest on bonds and preferred stock, etc.

A. The exhibit has two pages; Exhibit B carries the same summary on one page.

Q. And Exhibit C, I wish you would state what that is and
3170 make such explanation as you care to?

A. It is a statement of the total gross revenue received from the sale of gas for the five years ended December 31, 1910, stated in both cubic feet and dollars and cents.

Q. And Exhibit D?

A. Is a comparative statement of the cost of manufacturing and distributing gas for the five years ending December 31, 1910.

Q. I wish you would go through that briefly and give us that comparison in figures—the totals.

A. Do you wish the total distribution or grand total?

Q. The grand total.

A. The total expense the two months ending February 28, 1906, is \$39,650.85. For the year ended February 28, 1907, the expenses were \$252,391.29. For the year ended February 28, 1908, the total is \$280,579.21. For the year ended February 28, 1909, the total is \$278,530.68. For the ten months ended December 31, 1909, the expenses were \$254,495.83. For the year to December 31, 1910, the expenses were \$347,222.39. The total expenses for the four years to December 31, 1909, were \$1,105,647.86; or for the five years to December 31, 1910, the expenses were, \$1,452,870.25.

Q. Now take Exhibit E.

A. Is a summary of Exhibit D stated in cents per thousand cubic feet for the same period, five years.

Q. That is true as to both sheets of Exhibit E?

A. Yes, covering the period.

Q. Take Exhibit F?

A. Is a comparative balance sheet from the compilation of the Des Moines Company from March 1, 1896.

Q. Schedule No. 1 attached to your report, what is that?

3171 A. A statement of the quantity of gas manufactured, sold and used by the Company and unaccounted for for five years up to December 31, 1910.

Q. Where did you get your basis for this schedule?

A. The books of the Company.

Q. Schedule 2, explain that?

A. That is a comparative monthly statement of the quantity of gas accounted for and unaccounted for for the five years.

Q. Where did you get the basis for that schedule?

A. The books of the Company.

Q. No adjustments or additions?

A. No.

Q. Schedule 3?

A. Is a summary of the extensions and improvements to the works and plant from January 1, 1895, to December 31, 1910.

Q. What period does it cover?

A. January 1, 1895, to December 31, 1910; there are two sections of the schedule.

Q. The two sections cover that period?

A. Yes.

Q. Where did you get the basis for this figure?

A. The books of the Company.

Q. Does this represent the actual extensions made as shown by the books during these periods?

A. Yes.

Q. Extensions and improvements?

A. Yes.

The MASTER: That shows the character of the improvements?

A. The character of the improvements at the works.

The MASTER: Over what years?

3172 A. From 1895 to 1910.

Mr. BYERS: It covers two periods, your honor.

The MASTER: 1906 is the time of the Des Moines Gas Company?

A. Yes, this last section covers that period.

Q. And schedule 4, what is shown by that schedule?

A. Certain general statistics in regard to population, meters and services in use, etc.

Q. Is that schedule made up from the books of the Company?

A. Yes, it covers the period from 1895 to 1910.

Q. Schedule 5?

A. Is a summary of the additions to mains, services, meters, street lamps from January 1, 1895, to December 31, 1910.

Q. Where did you get those figures?

A. The books of the company.

Q. Here in Des Moines?

A. Yes.

Q. No adjustments or additions and charges by you?

A. None at all.

Q. Schedule 5 covers several sheets?

A. It covers three sheets.

Q. Schedule 6, what is shown by that?

A. Information in regard to standard prices paid by the Company for fuel, wrought iron pipe, cast iron pipe, etc.

Q. Where did you get the figures for this schedule?

A. From the vouchers of the Company.

Q. Schedule 7, what does that show?

A. A list of the offices salaries and particulars of the pay roll of December 24, 1910, as regards the office, and December 15, 1910, as regards the works.

Q. Where did you get the basis for the table?

3173 A. The books of the Company.

The MASTER: I call your attention to schedule 6, the prices there given are from the books?

A. Yes, sir; from the books and vouchers. The date of the invoice is stated on one side.

The MASTER: That is the price paid for the material?

A. Yes, sir.

Q. Now, Exhibit 30, Mr. Hall, has been referred to during your examination as made up by you, if I understand you correctly and is a complete memoranda made up from your examination and investigation of the books and contents and the facts that you have been giving upon the witness stand here, as you found them from the books, with such extensions on your tables and schedule and figures as seemed to you necessary to make the memoranda clear and intelligible, is that right?

A. Yes, sir.

Q. And you have stated in your examination just what changes or additions or adjustments you have made in the accounts of the company as you found them upon their books?

A. Yes, sir.

Q. And those adjustments and changes, as the case may be, are fully covered in this memoranda or report, Exhibit 30, by proper explanations?

A. Yes, sir.

Q. Is that right?

A. Yes, sir.

Q. How did you find in your examination that the books of this Des Moines Gas Company are kept?

A. They appear to be pretty well kept.

Q. I did not mean in that respect?

3174 A. In what respect?

Q. Take the book keeper, for instance, where did he get his memoranda or data or facts and figures to go upon the books of the company here?

A. They appear to come very largely from Philadelphia.

Q. Did you find anything here from which you could ascertain to your satisfaction the question of contracts for materials and supplies and so on?

A. Yes, we received a copy of the contract purporting to be made by the purchasing agent with the various contractors.

Q. That is to say, you found here among the records copies of contracts that the purchasing agent sent here with respect to contracts he had made for materials and supplies for this office?

A. Yes.

Q. Now was there any way you could ascertain here whether the contracts made—who were those contracts usually made by?

A. By Mr. Pearson, I think, the purchasing agent.

Q. Was there any memoranda here or any books or any records from which you could tell just the basis of those contracts other than what appeared on these copies that were sent here?

A. No, simply what the copies show, was all we had.

Q. You examined the contracts?

A. Yes.

Q. What do you have to say with reference to the price paid for oil as shown by the contracts?

A. The price paid was 2.8 per gallon as shown by the contract.

Q. Was there anything about that price that seemed to be out of the usual and ordinary?

3175 A. I must say I thought it would be some lower.

Q. You thought it ought to be lower?

A. I understood there was a very considerable cut of the price of oil two or three years ago. I thought the price was somewhat high, speaking from recollection.

Q. Did you try to ascertain whether the United Gas Improvement Company had anything to do with those contracts or prices of this oil?

A. All I know, Mr. Pearson, the purchasing agent is identified in some way with the United Gas Improvement Company.

Q. If you as an expert accountant were going to make up a complete and accurate statement of the actual cost of the property of this Des Moines Gas Plant here for the purpose of furnishing a report to your client that would be complete in all its details and would show exactly all materials and all machinery furnished by the U. G. I. to this Company here, could you do it and would you be satisfied to do it from these books alone?

A. No, I would want to see the books of the United Gas Improvement Company.

Q. Especially upon what matters?

A. The question of bonds, the settlement for these bonds; I might want to know something more about these contracts.

Q. To ascertain those facts it would be necessary to have recourse to the books of the United Gas Improvement Company?

A. It would, yes.

Q. And about those salaries?

A. I understand the salaries are absorbed by the United Gas Improvement Company—that is my understanding.

Q. Do the books here show anything about the purchase of these bonds?

3176 A. No, except that the transactions are arranged by the treasurer from his office in Philadelphia.

Q. The people in Philadelphia simply direct the manager here what to put on his books with respect to the bonds?

A. Yes.

The MASTER: Is that done by the directors of the Company or done by the United Gas Improvement Company?

A. It is done by the directors of the Company.

The MASTER: Which Company?

A. This company?

Q. The Des Moines Company?

A. Yes, the treasurer of the Des Moines Company sends the entries through to Philadelphia.

Q. The direction is from an officer of this company who is in Philadelphia and is also one of the officers of the United Gas Improvement Company?

A. I understand he is.

Q. Now is there anything here to show the rate of discount, if any, of the bond sales?

A. There are several bond sales entered at a discount of ten per cent and two sales at five per cent.

Q. When were those two sales entered?

A. The two showing the discount of five per cent in the year 1909 and 1910.

Q. Who got these bonds?

A. There is no record in the books her- to show who bought the bonds. The transaction was made by the treasurer; the final disposition of the bonds is not shown.

The MASTER: The treasurer of the United Gas Improvement Company is also the treasurer of this Company?

3177 A. Yes, he has some position with the United Gas Improvement Company; I don't know what.

MR. BYERS: I think Mr. Douthirt stated he was also treasurer of the United Gas Improvement Company; Mr. Lillie is the treasurer.

Q. The bond sales which you say the books show a discount of ten per cent, when were they made?

A. In the earlier years, 1906 and 1907.

Q. Do you know who got those bonds?

A. No.

Q. Is there any way to tell from the books here?

A. No; they went down through the treasurer's office, and this office was advised of the sale.

Q. From the Philadelphia end?

A. From the Philadelphia end.

Q. And advise- as to the amount received for the sale?

A. Yes.

Q. And the credit that should be entered on the books?

A. Yes.

Q. Did you have access to the bank-books of the Company here?

A. We did not consider those necessary at all.

Q. Did you make any inquiry about them?

A. No.

Q. Now, Mr. Hall, I wish you would work out for me, take the last year of this Gas Company, the year ending December 31, 1910, and eliminate for us all charges which you think ought to be eliminated and state to the Master just what was the actual cost of manufacturing gas and delivering it to the consumer in the city of Des

Moines for that year, as shown by the books of the Company, 3178 with such elimination as you think ought to be taken out?

A. Eliminating the items about which there may be a reasonable doubt in regard to a proper charge—I refer particularly to the new furniture purchases and expenses extra and salaries general—there is a justification for taking out the new furniture. The extra expenses—there has been a ruling made in regard to those charges under the traction ordinance in the city of Chicago. The Company and the City have a partnership agreement. The City won't permit the Company to charge anything in the way of charity subscriptions, no charges of that nature at all. Accepting the city comptroller's ruling and also eliminating salaries general, we would have adjusted, the revenue for the year 1910 on the basis of 90 cent gas and on the basis of actual distribution expense for that year, \$119,698.40, equivalent to 22½ cents per thousand cubic feet sold. That on the investment of \$1,550,000, is equivalent to a return of 7.72 per cent. If we go further and accept Mr. Hagenah's elimination of \$7,351.92, referred to on page 30 of his report, we would have an adjusted return of 23.88 per thousand feet, which is equivalent to 8.19 per cent on their investment.

Q. That is at 90 cent gas?

A. Yes.

Q. That does not quite answer my question.

A. Applying the same adjustments on the amounts, taking the actual manufacturing expenses for 1910 and the average operating and distribution expenses for four years to 1909, applying them on the 1910 income we would have an adjusted revenue for the year 1910 of 27.88, which is equivalent to 9.56 per cent on the investment. Applying the next table on the basis of the actual 3179 manufacturing expenses for the year 1910 and the distribution expenses based on an average of five years to 1910, including depreciation, and accepting 90 cent gas, we would have an adjusted revenue of 26.63, or 9.13 per cent upon the investment.

Q. What I wanted Mr. Hall, before we got to this, was for you to take the gross revenue of the Company for the year ending December 31, 1910, and after deducting all the different operating expenses I wanted you to state the actual cost without respect to the rate of manufacture and delivery to the consumer per thousand feet of gas in Des Moines for that year?

A. Applying these adjustments?

Q. Yes. First let me ask you about the item of furniture, was that all covered in the year 1910?

A. Yes.

Q. And the entire charge for the furniture was carried into the operating expenses for that year?

A. Yes.

Q. Is that in your judgment a proper way to charge it?

A. No, it should be charged to the furniture account: some people do charge it that way.

Q. If it was charged to operating expenses, should it all go into one year?

A. No, it should go over about ten years.

Q. Without reference to that now, eliminating such items as you think ought to be eliminated and using the actual operations of the Company as shown by their books, what was the actual cost to them for delivering to the consumer a thousand feet of gas in Des Moines for the year 1910?

A. Accepting the eliminations of furniture, extra expenses and salaries general, the total cost would be 62.4 per thousand 3180 during the year 1910.

Q. Now, if you would take the average for the preceding four years for distribution in general, what would be the cost then?

A. Under the basis of actual manufacture for 1910 and the average operating for four years from 1906 to 1910, the cost would be 56.2 per thousand.

Q. Let me see if I understand that. If 1910 had been a normal year as compared with the four preceding years, normal in distribution in general, the actual cost for manufacturing and delivering a thousand feet of gas to the consumers in Des Moines for that year would have been 56.2 cents.

A. No, I wish to correct myself. Under the basis you speak of it would be 62.82 including an allowance for depreciation. My previous answer I would like to correct to the extent of saying that the cost for the year 1910 on actual expenses subject to adjustments, including allowance for depreciation, would be 68.2 per thousand.

Q. I am not as clear now as I was before. I am not talking about depreciation at all; there was no depreciation. I want you to take the Company's books just as they were and handling the matter leaving out depreciation?

A. Then my original answer was correct; 62.4 per thousand for 1910.

Q. If you used the average for the preceding four years, what would it be?

A. 57.02 cents per thousand.

Q. In other words, if I understand you now, if in the year 1910, if the expense of operation as charged by the Company and the expense of distribution had been the same as the average of the preceding four years, the actual cost of manufacturing and 3181 delivering a thousand feet of gas to the consumer in Des Moines would have been a fraction over 57 cents?

A. Yes, sir.

Q. And to that, if you were figuring out the cost, having in mind a reasonable allowance for depreciation, you would add six cents per thousand feet for depreciation?

A. Yes.

Q. What has been done with the surplus profits of this company?

A. Been retained in the business.

Q. Used for any other purpose?

A. They have been applied in repaying preferred stock contracts.

Q. The preferred stock contract account, is that full and complete on the books here?

A. It appears to be.

Q. How is it made up, by instructions from Philadelphia?

A. Yes.

Q. Have any of those bond sales so far as the books show been used to take up preferred stock contracts?

A. At least two of the sales of bonds appear to be made on the same day as the preferred stock contracts were retired.

Q. Were the book entries sent here sufficiently full and complete so that you could tell whether the money was used to take up preferred stock contracts?

A. You couldn't tell what they did with the money; it simply went into the pot.

Q. You couldn't tell whether it was used to take up preferred stock contracts or not?

A. I could not say; but on March 31st, 1909, and October 31st, 1909, they sold bonds and retired preferred stock contracts 3182 the same day.

Q. How much did the bond sales amount to?

A. In total, \$92,000.

Q. What was the total preferred stock contracts taken up?

A. \$217,910.80.

Q. On the same day?

A. On the same days—two days.

Q. This bond sale, how was it entered on the books up here?

A. The entry is a straight bond sale, the proceeds being charged to the treasury.

Q. Just simply charged to the treasury?

A. Yes.

Q. To ascertain exactly what was done with that, you would have to have the books in Philadelphia?

A. Yes.

Q. And exactly what was done with the money?

A. Yes. The proceeds of the bonds were handled of course by the treasurer in Philadelphia.

The MASTER: Did you find the stock contracts cancelled?

A. At least the Philadelphia records indicate the contracts have been retired.

The MASTER: I mean those that were paid?

A. Yes, they were retired.

At this time and adjournment was taken until 1:30 p. m.

3183

1:30 P. M., WEDNESDAY, September 13, 1911.

JAMES HALL continued on direct examination by Hon. H. W. Byers, testified as follows:

Q. In your examination and investigation of the books and records of the Des Moines Gas Company made by yourself and your assistants under your direction I wish you would state to the Master just the scope of that examination, the field you covered, the character of the books, papers and records examined?

A. In regard to the operating accounts the examination covered a general review of the whole situation over five years and a more particular examination of all the entries of 1910 examining vouchers for payments and going into the matter very carefully.

Q. And were the entries as far as it was possible checked up with the vouchers and followed down to the origin of the item if possible?

A. Yes, for one years particularly, 1910.

Q. Now for instance to examine a voucher what is necessary to be done, what ought to be done by the examiner?

A. The man examining a voucher should pay particular attention to several things. First to see the voucher is addressed to the company or proper party, that a proper date is on, that is a date within the period of the examination, that the goods invoiced are in the ordinary course of that company's business, that the prices appear to be reasonable, that the account is properly charged, that is construction work it is charged to investment account, if operating to operating account. That the acknowledgment of the goods whatever it happens to be is properly O. K'd by a responsible party.

Q. And how long do you say you and your men were engaged in the work?

A. About 1040 hours altogether.

Q. That would be in days about how many counting the time that they put in, the hours?

A. Be about 140 ndays.

Q. What do you have to say about anything like an intelligent examination and investigation of these books and papers being made in say, five or six days?

A. Well I would not take much stock in it myself. I would not place much value on it myself. Personally I could not do it.

COURT: I don't understand that 1040 hours, what is that?

A. That is the time spent by the accountants making the examination of the books of this company.

Q. By yourself and the various men?

A. And the various men I had on the work.

Q. Have you examined complainant's exhibit 26 for the purpose of analyzing it and verifying it?

A. Yes, sir.

COURT: Which one is that?

Mr. BYERS: That is Mr. Hagenah's report, part of his report.

Q. To go back again to the former question, about the vouchers, about how many of these can a man examine in a day?

A. Well it depends for what purpose he is examining. In a case of this kind a man could not consistently examine more than about 250 a day.

Q. About how many were there altogether?

A. They run about 1800 to 2100 a year.

Q. Now then going back to the question with respect to Exhibit 26 I wish you would take that up and explain to the Master just what criticisms if any or errors if any you found in it and what criticisms you have to make of it?

A. It seems to me in this exhibit there is a fundamental error in the charge side.

Q. I think I stated in a former question that Exhibit 26 was a part of Mr. Hagenah's report. It is a supplemental sheet furnished

and presented here in evidence as I remember it and it is marked Exhibit 26, that is the one I am asking you about?

A. Yes, sir. This exhibit purports to show the annual investment value on an earning basis of eight per cent. It commences with the value of the plant at the beginning of the year, to that there is added eight per cent on value of plant. The addition to the plant during that year including an allowance for working capital. Eight per cent on the additions including working capital for six months, that is four per cent per annum. The operating expenses are added. Depreciation on a basis of two per cent on the depreciable property added making a total. From that is taken off gross earnings leaving investment value at the end of the year. Assuming the argument is all right on the statement the depreciation fund which is here charged should be set off in a fund and compounded at 8 per cent per annum and deducted from the investment value.

Q. And what difference would that make in Mr. Hagenah's conclusions?

A. That would make a difference in Mr. Hagenah's conclusions of \$830,103.00.

Q. I wish you would go through that carefully, explain it to the Master how you work it out?

COURT: What interest do you take it at?

A. Eight per cent the same as charged, taking everything 3186 at 8 per cent. \$830,103, that is depreciation of \$392,662 compounded at 8 per cent the interest being \$437,441.00 in round figures.

Q. Have you worked out a table that would show your method as compared with his and the difference in the results?

A. Yes, sir.

Q. Do you have a copy of it?

A. Yes, sir.

Q. I wish you would take defendant's Exhibit 33 and start with the first table in it and go through it and explain your method and the difference and the reason why you make the corrections if any as you go along?

A. The first table in this statement is a copy of Mr. Hagenah's Exhibit No. 26. With the sole exception that it has been footed and a supplemental statement added to the right showing depreciation reserve compounded on the basis at which it was introduced. At the bottom of the table there is a summary showing the reconciliation or adjustment of this whole table. Bringing out the amended figure after deducting that depreciation compounded.

Q. Now will you explain why you adopt that method of adjusting Mr. Hagenah's figures?

A. Because I find that in his computations Mr. Hagenah has charged to operations in the plant with depreciation at 2 per cent per annum and has not built up a depreciation reserve or has not credited the plant or property account for the corresponding amount.

Q. Why is it necessary to do that?

A. Because the annual wear and tear of the plant is charged to the operations naturally decreasing the value of the property.

Q. And so you carry along the depreciation side and figure
3187 the interest on that?

A. Yes, sir.

Q. On the same basis that he adds it to the property?

A. Exactly. He adds to the property the depreciation, in determining his 8 per cent fund here he adds to the property depreciation of 2 per cent omitting the fact altogether that that property is decreasing in value to that amount on the assumption that the allowance is a proper allowance.

COURT: Let me ask you a question or two there. You take the \$5,997 and you compound that for how many years.

A. I pass that up for the first year, the time it is entered the first year I pass that up. Then it is compounded until December 31st 1910 or the close of the computation, that is fifteen years.

COURT: Then the next amount for fourteen years?

A. Fourteen, thirteen, twelve and so on.

Q. In doing that you reached this total of \$437,341.00?

A. Yes, sir.

COURT: What do you find the value of the plant to be under his plan there in that way?

A. Taking off that credit the value of the plant would be \$2,306,128 shown on the next page.

Q. Assuming that the basis of the Hagenah figures aside from the deduction you have made by carrying off this compounded on the sum depreciated, it would show a valuation, an investment value of \$2,306,128?

A. Yes, sir.

Q. Now then what criticism do you have to make of that situation?

A. Referring particularly to this depreciation table?

Q. Yes, to any part of it.

3188 A. I might point out that had this depreciation reserve been set out each year in practice as it is in theory here to replacement or depreciation, charged to that depreciation reserve instead of being used in additions to plant, you would get exactly the same results that I have got now. In other words if the additions or replacement or even expense were charged off to that depreciation reserve the additions and expenses as shown on the debit side of this statement would be correspondingly reduced and the net result would be identically the same.

Q. That is the net result working it out on that plan would be the same as the result you find from your examination of the books?

A. Exactly.

Q. And the investment value as it worked out under your method?

A. Yes, sir.

Q. I notice that the adjusted value as you have worked it out here on defendant's Exhibit 33, is \$1,774,913.00.

A. After making that computation for depreciation and interest I looked over the statement to ascertain how it was made up and in my opinion it should begin with the appraisal of 1895, that ap-

praisal having been accepted by both parties in the last suit, at least this is my understanding as a settlement of their troubles and basis for future work. Instead of that Mr. Hagenah goes back to 1886. Adjusting the statement to give effect to that and also eliminating \$120,000 of bonds included as capital expended and which was used to pay off an old United Gas Improvement Company indebtedness, eliminating the Capital City Electric Light stock which was erroneously included, and eliminating the bond discount and expense of organization upon an 8 per cent, the same basis at which it went into the statement, these deductions the total result following

Exhibit 26 is cut down to \$1,774,913.

3189 Q. You stated a moment ago, I don't know whether I quite understood your answer or not, that by adopting your method and in working out Mr. Hagenah's method with your corrections and your addition the result would be the same as shown by your report as to what the investment value of the plant was, is that what you intended to say?

A. Yes, assuming the investment value of the plant is the correct basis and taking out these additions which I consider erroneous the adjustment value therefore would be \$1,774,913.00.

Q. In your own report the investment value is less than that is it not, you give it as less than that?

A. Yes, it is less, it is less for the reason that I have not compounded any loss under eight per cent earnings.

Q. I wish you would explain that to the Master, the difference?

A. The report Exhibit 30, does not capitalize early losses while this report of Mr. Hagenah's does capitalize early losses on a basis of 8 per cent.

Q. That is where the difference comes in between these figures, \$1,774,913 and your figures?

A. Yes, sir.

Q. What do you have to say about the correctness of the methods of getting at investment value?

A. Well I hardly think this method is correct but I will say that I think the company is entitled to capitalize its early losses provided the early losses are not in any way attributable to bad management.

Q. And these so-called early losses that Mr. Hagenah has capitalized and compounded at 8 per cent, what do you have to say about that?

A. Well I don't think this is the correct basis.

3190 Q. This table here in Exhibit 33 called criticism of complainant's Exhibit 26, I wish you would explain that a little more fully so that we will all understand just what you are trying to get at in it.

A. That first half of that statement is a summary of exhibit 26 as put in evidence.

Q. That is a summary of the exhibit that you have just been referring to?

A. Yes, sir.

Q. And brings out an investment value of the plant December

31, 1910 \$3,136,231.00. The cost of the plant as stated in this Exhibit 26, including working capital is \$2,064,118.00. Allowing for working capital and accepting the statement in Exhibit 30 we have an appraisal plus additions of \$1,796,528 or a deficiency of \$237,490 as compared to this exhibit 26.

Q. And how do you account for that?

A. That appears to be represented by the bonds used to pay off liabilities including \$120,000, inclusive of bond discount and organization expenses \$40,873, inclusive of the stock of the Capital City Electric Light Company, capitalized erroneously \$2,553 and the adjustment of the book value January 1, 1895 over the appraisal of \$96,698 and a small difference which I did not look into \$7,366 making up a total of \$267,490. Now taking that item or these various items compounding them at 8 per cent we find the value of the plant according to Exhibit 26 should be reduced by the aforementioned amounts \$267,490, interest on the first three items for four years approximately \$55,825, interest on another item fifteen years approximately \$207,900 and depreciation \$392,662 together with interest compounded at 8 per cent \$830,103 a total deduction of \$1,361,318 bringing down the investment value of the 3191 plant adjusted to \$1,774,913.

COURT: Where do you find that here?

Mr. BYERS: It is on the third sheet of this Exhibit 33.

Q. Have you any question at all about the justice or accuracy of the method you have adopted here in this table in revising Mr. Hagenah's figures to \$2,774,913?

A. Assuming Mr. Hagenah's basis to be right that would be the result.

Q. And the proper result?

A. Yes, sir.

Q. Now have you taken Mr. Hagenah's basic figures, if that is a proper term to use, his value of plant at the beginning of the several years of the period covered by him and worked it out on the basis of six per cent?

— No, I accepted our own figures throughout Exhibit 30 and put them up on the same method as Mr. Hagenah and worked it out on the six per cent basis.

Q. I wish you would go through that and explain that to the Master how you get it?

A. That would bring out an investment value of plant on a six per cent basis \$941,268.

Q. Worked out in exactly the same way by using your figures as to the value of the plant at the beginning of each year?

A. And the subsequent additions to the corrected revenue allowing six cents for depreciation.

Q. And taking \$50,000?

A. At the commencement and right through on to the last year.

COURT: What do you get as the result?

A. \$941,268.

Q. That is the investment value on a six per cent basis?

A. Six per cent basis.

3192 With \$50,000 working capital charged each year until the last and the last year you charged \$68,000?

A. Yes, sir.

Q. Now have you a similar table worked out on a seven per cent basis?

A. Yes, sir. That would give a net investment value of \$1,143,505.

Q. That is the following table?

A. Yes, sir.

Q. That is the investment value of the plant on a seven per cent basis?

A. Yes, sir.

Q. Taking the appraisal value to begin with?

A. Adopting the same figures throughout on both tables six and seven per cent.

Q. And taking \$50,000 capital each year?

A. Yes, sir.

Q. And your six cents of depreciation?

A. Yes, sir.

Q. Showing an investment value of the plant on a seven per cent basis of \$1,143,505?

A. Yes, sir.

Q. Have you the next table proceeding in the same way upon an eight per cent earning basis?

A. Yes, sir.

Q. What does that work out?

A. Brings out an investment value of \$1,377,197.

Q. Then if I understand you taking the cost of this property as shown by the books beginning with the appraisal of 1895 and adding \$50,000 as working capital all through until the last year and including your six cents depreciation, working it out on the same method Mr. Hagenah works his out except as to depreciation there is a difference between the investment value as shown by your method represented by the difference between \$1,377,197 and \$1,774,913.

A. Yes, sir.

Q. And what would that exact difference be in figures?

A. \$397,716.

Q. In other words, the figures you have just given represent the other side of the count that Mr. Hagenah failed to carry on through his computation?

A. Yes, sir.

Q. Referring to Exhibit 23 if you have it before you, page 25, I find this statement on that page "An examination of the vouchers and authorizations of your company shows that it has benefitted very materially by such purchase when it is considered that the accounts of the company have been charged with costs based upon such favorable conditions of purchase the benefit resulting to the construction account and to the operating account is apparent." What do you have to say about any such indicated benefits from any investigation or examination you made.

A. It was not apparent to me.

Q. It goes on and says further "For these services your company has until recently paid no compensation except several small payments incurred for drafting services on particular assignments. During the last year your company has paid for these services at the rate of \$10,000 per year. Through the payment of this charge your company is spared the expense of maintaining a large engineering department and decreasing its office staff for executive, accounting and auditing purposes." What do you have to say about 3194 that statement from your examination?

A. Well it may be true to a certain extent but it was not apparent to me.

Q. Was not apparent?

A. No, I don't think it would be necessary myself to increase the office force any if the Philadelphia office did not exist.

Q. That is in your judgment the office force—

A. The present office force could run that place I think.

Q. Is ample?

A. Seems to me so.

Q. And how did you find the fact to be if you found anything about it as to whether or not the U. G. I. made regular and systematic charges for such work as it did do and the expenses that it incurred in auditing and supervision and all that?

A. Well I saw no record of them charging anything in respect to auditing but they did make charges in respect to advertising services and engineering services, rate regulation expenses and a few things of that kind.

Mr. BYERS: Defendant at this time offers in evidence Defendant's Exhibit 30 which is the report of the witness Hall; Defendant's Exhibit No. 31 which is entitled Des Moines Gas Company rate litigation expenses; Defendant's exhibit 32 which is a computation made by Mr. Hall and defendant's Exhibit 33 under the title of Des Moines Gas Company investment value of plant December 31 1910 in which is included the criticisms as stated by the witness of the report of the witness Hagenah.

Mr. GUERNSEY: The complainant object to Defendant's exhibit 30 on the ground that it does not purport to show the value of the property in question and is irrelevant and immaterial and for the further reason that what it contains with reference to earnings 3195 and operating expenses is not predicated upon the actual results at any time of the property in Des Moines or of the business done in the city of Des Moines.

Cross-examination by N. T. GUERNSEY, Esq.

Q. What did you say your vocation is?

A. Public accountant.

Q. Just what is the scope of the duties of a public accountant?

A. Well they are quite wide. They include practically all matters relating to accounts, the auditing of accounts on behalf of directors, stockholders and investors, investigation in cases of this kind or for

any other purpose, investigation on behalf of bankers to determine the earnings of concerns or capital invested for the purpose of floating bonds or preferred stock, acting as secretary, treasurer or comptroller, or acting as receiver in the liquidation or winding up of a company, acting as trustee in bankruptcy or in deceased estates settlements, that is the very broadest interpretation I can give you of it.

Q. What do you mean by auditing accounts?

A. Making a detailed examination of the accounts of every class, scrutinizing all accounts on behalf of stockholders or directors.

Q. Is it necessary on behalf of stockholders or directors?

A. Yes, an audit would be always on behalf of the stockholders or directors.

Q. Suppose it was in behalf of creditors?

A. That would be an investigation and would not embrace in many lines as great detail as an audit.

Q. Suppose a creditor employed you to do the same thing a stockholder or director employed you to do would it still not be an
3196 audit or would be a rose under another name?

A. Call it an audit but advise my client it did not require the making of detailed investigation as I would under an audit, most cases would not, ninety nine out of a hundred would not. That is an audit is almost always an annual occurring event you go in each year and check the accounts over for that year.

Q. That is simply an annual audit?

A. Well there is practically no difference, an audit means practically an annual audit or semi annual or quarterly.

Q. You can examine the books two ways or the accounts two ways can you not. That is, you can make an examination that not only goes to the books, but goes beyond the books?

A. Yes, sir.

Q. And goes to the question whether or not the entries as made on the books are correct?

A. That is the purpose of the examination.

Q. That is an audit isn't it?

A. Yes, sir.

Q. That is what distinguishes an audit, the fact you go back of the books and back of the examination of vouchers and by independent investigation if you please, ascertain whether or not the entries on the books are correct.

A. Yes, the same thing applies in investigations, you endeavor to go behind the books as far as possible.

Q. But that is the distinguishing characteristic of an audit, the fact you do not accept the books, but go behind the books and check to ascertain whether or not the entries made are correct before you draw any conclusions from those entries?

A. Yes, sir.

Q. Now you may also make an examination of books with-
3197 out going behind the entries on the books may you not?

A. Yes, sir.

Q. Now what do you call that?

A. That would be more of an investigation.

Q. That would be an investigation?

A. Yes.

Q. You said that in this work here there had been expended 1040 hours?

A. Yes, sir.

Q. You had a memorandum at which you looked. You kept a memorandum did you not showing the amount of time each person expended upon the work?

A. Yes, sir.

Q. And when?

A. Yes, sir.

Q. Now how much time did you personally devote to this work?

A. I was up to the date that memorandum was prepared 100 hours.

Q. What is the date when that memorandum was prepared?

A. August 31st.

Q. And at what dates did you do this work?

A. I had three or four days in July and the remainder of the time in August the exact dates I can't give you.

Q. Can't you look at the memorandum?

A. The exact dates are not there. That is simply a summary of the time.

Q. Will you furnish these exact dates?

A. I can't do so until I go to Chicago.

Q. Can't you write for it or telegraph?

A. I can do so.

Q. Will you do so?

A. I can get the detailed time sheets if necessary.

3198 Q. I don't care for that.

A. Yes, I can get you that.

Q. Well will you get it?

A. Yes, certainly.

Q. Since the date of that memorandum how many hours have you devoted to this?

A. About forty or forty five hours probably.

Q. And when?

A. Several hours last week in the office on Saturday and each day this week, Monday, Tuesday and Wednesday.

Q. How about Sunday?

A. I was not engaged on that on Sunday.

Q. This report is dated the 19th of August if my recollection is correct. When was it in fact completed?

A. It was completed on or about the 19th day of August.

Q. And on what part of this report then was the work that was done by you after that time done?

A. The work after that time was done on these criticisms of exhibit 26.

Q. And when was that completed?

A. It was completed last Friday.

Q. Now how much of the time that you have devoted to this have you spent in Des Moines?

A. About eighty hours or ninety hours. I spent one complete

week here and I spent three or four days other times. Roughly 80 to 90 hours in Des Moines.

Q. When was that complete week?

A. The week preceding August 19th.

Q. Who directed the scope of this examination?

A. I did.

3199 Q. Without suggestion from anyone else?

A. Entirely.

Q. And who indicated to you the four fundamental question- I believe that you state in the inception of the report?

A. That work is mine.

Q. So that this was your own idea of the work that it was necessary to do in an order to answer those questions?

— It was.

Q. Of course you yourself have not examined these vouchers?

A. No, sir; I did not.

Q. Now turning to those four questions I notice that you have very frequently throughout your report referred to the amount of stock and bonds issued. I wish you would state upon which one of these questions you regard that as material?

A. I would not regard it as material to the answer of any question but I do regard it as material to a general understanding of the situation.

Q. It would have no bearing would it on the cost of the property?

A. Not a bit.

Q. And it would have no bearing would it on the cost of manufacture?

A. None.

Q. And it would have no bearing on the results from the ninety cent sales?

A. None.

Q. It would have no bearing on the capital investment would it?

A. No, sir.

Q. Now is there any other matter you have treated as prominently in this report as you have this matter that you say is immaterial to these fundamental questions?

A. I didn't know I had given that undue prominence,
3200 that was not my intention.

Q. Is there any other matter which you have treated as prominently in your report as you have this matter which you say is immaterial to the determination of these questions?

A. Yes, I consider I treated the five fundamental questions more prominently than I did that stock question.

Q. Each one of them more prominently?

A. Yes, sir.

Q. Before we go into this further I want to take up a matter you referred to this morning because you referred to it in such a way I could not at least make head or tail out of it. You attempted as I understood it this morning to take the Capital City book value of March 1, 1906, and reconcile it with your conclusions.

A. Yes, sir.

Q. Now will you give us those figures and give them to us slowly so we can put them down and see just what you claim about that?

A. The capital city company had a book value on February 28, 1906, of \$1,565,230.09.

Q. Book value of the assets of the Capital City Gas Light Company?

A. Yes, sir.

Q. Now then what is the next step?

A. I deducted the excess of the book value at January 1, 1895, from the appraisal value at that time.

Q. Deducted the difference between the book Value January 1, 1895 and appraisal as of that date?

A. Yes, sir.

Q. And what is that amount?

A. \$211,468.16.

Q. What is that \$211,468.16 made up of?

A. It is made up of the book value of the water gas plant and patents at January 1, 1895 namely \$200,000 over the amount at which they were appraised \$27,903.05.

Q. That \$211,468.16 is obtained as indicated just above that same amount on page 22 of your report?

A. Yes, sir.

Q. Now, what is the next thing?

A. The next deduction was \$134,297.44 also indicated on page 22.

Q. That is the next sub total on page 22 of your report?

A. Yes, sir.

Q. Now what is the next step?

A. I took one from the other, the smaller amount from the greater giving \$1,219,464.49.

Q. Now what is that \$1,219,464.49?

A. Appeared to be the actual cost of that property accepting the appraisal of the basis up to February 28, 1906.

Q. By actual cost you mean the cost as shown by these books?

A. As shown by these books taking that appraisal as the basis.

Q. Now what is your next step?

A. Add to that the estimated cost of the new gas holder \$120,000.

Q. That gives you what?

A. \$1,339,464.49.

Q. What is the next step?

A. Add the Valley Junction properties \$45,000. Gives an adjusted cost of \$1,384,464.49.

Q. That is what it cost January 1, 1906.

A. No, February 28, 1906 accepting the appraisal.

Q. I mean February 28th. Now stopping on that a minute that don't represent the actual cost as a matter of fact does it?

A. No.

3202 Q. And it represents something less than the actual cost?

A. It does.

Q. And you use actual cost as I use it there, that is as shown by the books?

A. As shown by the books, yes.

Q. Who suggested that you start with this appraisal?

A. That is my own idea.

Q. Who told you that there was an appraisal?

A. I looked up the old record.

Q. What record?

A. The troubles you had here about 1894 or '95, I got a copy of the papers through Mr. Brennan including a copy of Col. Pratt's appraisal.

Q. Then Mr. Brennan furnished you a copy of that old record?

A. Yes, sir.

Q. That was shortly after you came here?

A. Yes, sir.

Q. What authority if any did you find in that record for the statement you have made so often that this appraisal was agreed to?

A. That was my understanding of the matter that that appraisal—

Q. I know, but I didn't ask you that, I asked what authority you found in that record for that statement?

A. I don't know whether I found any particular authority in that statement I found the appraisal O. K'd by Mr. Pratt and accepted it.

Q. Did you go far enough into that record to find out what became of that case?

A. It was compromised I got that length.

Q. Who told you that this appraisement was accepted by both parties at that time?

3203 A. I was not told so. By no one to my recollection.

Q. You just took it for granted?

A. Well yes you charge so. That being submitted by the company I accepted that as the actual record of what happened and what was agreeable to them.

Q. I am not getting at that, but you have stated a great many times in your examination that that was an appraisement that was agreed to at that time.

A. That was my understanding of it.

Q. Where did you get that understanding, who told you that?

A. I don't recall that I was told so.

Q. Well did you find anything in the record that said that?

A. I don't recall seeing that in the record.

Q. You did find out in the record there was a dispute as to the value of the property?

A. I don't know that I did that, I have no recollection of observing that.

Q. How much of the record did you have?

A. That I could not answer very well. I got about the appraisal and accepted it and disregarded the rest. I didn't read it all, didn't attempt to.

Q. Did you have anything except the appraisal?

A. I don't recall seeing anything except the appraisal and a number of statements about earnings which I did not pay any attention to is all I recall seeing.

Q. So you have no authority for the statement you have made

so frequently that this was an agreed appraisal or that this appraisal was accepted by both sides?

A. No, I will amend that by saying that was an appraisal submitted by Col. Pratt and accepted by me.

3204 Q. Now have you given us all of the figures relating to this reconciliation of the book cost with the book value as shown by the books of the Capital City Gas Light Co. February 28, 1906 that you referred to this morning?

A. No.

Q. Will you please?

A. I endeavored to see how that amount was built up.

Q. How which amount was built up?

A. The amount \$1,384,464.49.

Q. Let's have those figures?

A. That was built up by Capital City bonds amounting to \$400,000.

Q. What do you mean by built up?

A. The investment was derived from the sale of bonds.

Q. Capital City bond- how much?

A. \$400,000. Out of the Des Moines Company bonds issued for the gas holder, of the Valley Junction properties or rather assumed to be issued for the holder and Valley Junction properties, \$165,000. The liability to the United Gas Improvement Company \$105,526.49. The surplus earnings from 1886 to 1906 \$627,959.16 and the original capital stock of the Capital City company \$300,000.

Q. That gives you a total of what?

A. A total of \$1,598,485.65. You take from that the water gas set abandoned \$211,468.16 as shown on page 22 and the electric company's stock charged to plant \$2,553 and brings you down the result of \$1,384,464.49.

Q. There is one thing I don't understand, this Capital City Gas Light Company statement we are working on isn't it?

A. Yes, sir.

Q. How do you get Valley Junction into the Capital City
3205 Gas Light company did they ever own it?

A. Now so far as I know, I am quite agreeable to eliminate it on both sides of that statement gives the same result.

Q. Well but is it in the amount \$1,565,230.09?

A. It is not no.

Q. And is there a trace of it on the books of the Capital — Gas Light Company?

A. There is not.

Q. Well then upon what theory is that item an item to be taken into account in order to ascertain that reconciliation of book value on the Capital City Gas Light Company's books?

A. It is an endeavor to reconcile the books of the Capital City Company and the Des Moines company is what started us.

Q. February 28, 1906—

A. The Valley Junction properties and gas holder came into existence between midnight February 28, and starting business March 1st.

Q. Do you mean that?

A. As I understand it from the books. I don't know about the actual facts, it is what the books would indicate.

Q. Well, would you expect the books of the Capital City Gas light company which did not own this property to show when it came into existence?

A. I would expect them to show this gas holder.

Q. You would expect the books of the Capital City gas light company which did own this property to show when it came into existence.

A. What do you mean by this property, Valley Junction?

Q. Valley Junction or the holder?

3206 A. In regard to Valley Junction no, in regard to the holder, yes.

Q. Then you assume the Capital City Gas Light Company owned it?

A. My understanding of the matter is so far as my information on the facts that the gas holder was started prior to February 28, 1906 and not completed until subsequent to March first 1906 that is as near as I can get information about that gas holder was commenced and the contract let by the Capital City company.

Q. What basis have you for that statement that the contract was let by the Capital City company?

A. By the Capital City company or by the United Gas Improvement Company one or the other, I don't attempt to say which.

Q. What basis have you for the statement the contract was let by one or the other? As I understand it you are an accountant and deal with facts?

A. As far as I can obtain the facts and I endeavored to obtain the facts from Mr. Curren.

Q. Now I want to know what basis you have in these books or records for the statements you made there if any?

A. There is absolutely nothing in the books about it.

Q. So you have no basis in these books or records for that statement?

A. Not from the books and records, no.

Q. Did Mr. Curren say to you the Capital City Gas Light Company had made the contract for that holder prior to March 1, 1906?

A. He didn't specially say the Capital City, but made the statement the contract had been made for the holder prior to that date.

Q. Do you as an accountant think that that statement warrants you in running this item of \$120,000 into the books of the Capital City Gas Light Co.?

3207 A. I am not putting it in their books.

Q. You are using it to reconcile an item found on those books the day before the Des Moines Gas Company went into business?

A. No, sir. Using it in an endeavor to connect up the Capital

City books with the Des Moines Company books at the time it commenced business.

Q. You told me a few moments ago this amount you added to the figures was for the purpose you stated to find how this amount \$1,384,164.49 was built up. I asked you what you meant by built up and you told me you meant the securities the Capital City Gas Light Company issued for it.

A. Yes, sir. And if you will permit me to finish the statement I started on you will get the rest of the figures, you have not got them all.

Q. I would prefer to conduct it in my own method. I want to stick to this proposition first. I want to know why you consider as securities building up this item on the books of the Capital City Gas Light Company bonds issued by the Des Moines Gas Company which at the time this item, of course at that time had not been organized and the bonds had not been issued or authorized?

A. I am endeavoring to build up the account of the Capital City Company and get it up with the opening account of the Des Moines company. It is therefore necessary to bring the items into account somewhere.

Q. Well go on with your other figures and see if we can see what you mean?

A. In the \$1,384,164.49 the following securities were issued by the Des Moines company.

Q. You are running two things together, now you are 3208 starting in with the Des Moines Company March 1, 1906 aren't you?

A. Yes, sir.

Q. That was the second proposition you put up this morning?

A. It is all part of the same.

Q. All part of the same?

A. So far as I am concerned, yes.

Q. Now then you keep referring all the time to this water gas plant and patents as appear on the books \$200,000. What was the cost of these things as shown by the books?

A. As far as I can judge there was an issue of \$200,000 bonds issued in payment of the water gas set and the patents.

Q. And your figures do not show that as a part of the cost of the property of this company?

A. They do not. Pardon me, they do to the extent of \$27,903.06 as appraised by Col. Pratt.

Q. So that your statements here neither show cost nor value do they?

A. They do not.

Q. Did you do it this way, did you take cost where that was low and value where you could get it where that was low and make a combination of the lows?

A. No, I did not.

Q. Now if you had gone back a little further instead of starting with this so called appraisement your investment would still have been higher wouldn't it?

A. It would have been some higher than the appraisal, yes.

Q. But you didn't do that?

A. No.

Q. You knew from your examination of the books that that was true didn't you before you made this selection?

3209 A. Yes, sir.

Q. And you selected the low one?

A. Yes, sir.

Q. Now I want to go back — page 5 here for a minute. At the bottom of that page you show as I understand it some costs of manufacture not as shown by the books, but as corrected by you?

A. Yes, sir.

Q. Now give us just the items that you added and subtracted.

A. From the two months' period to February 28th, 1906, I took out the charge for accidents and damages \$3,685.17.

Q. You took that out because the accident did not occur in the two months.

A. Exactly.

Q. That amount had actually been paid had it not?

A. It had.

Q. And had been paid during that period?

A. Yes, sir.

Q. Now what is the next item?

A. I deduct from the ten months ending December 31, 1909, \$333.18 covering replacement value expenses. For the year 1910 I take out \$5,602 for the same expense, for replacement values or expense of making an appraisal.

Q. These replacement value expenses are expenses that were incurred by the company in connection with the appraisalment of the property in connection with this suit.

A. Yes.

Q. Now what else did you deduct if anything?

A. I deduct the interest on the floating debt.

Q. What year?

3210 A. For each year.

Q. What are the amounts each year?

A. The first two months \$487.00. For the year to 1907 \$3,590.71. For the year February 29, 1908, \$2,308.48. For the year to February 28, 1909, \$49.50 and for the year 1910 \$690.84.

Q. What do they total?

A. I can't tell you offhand.

Q. Can you total them for me?

A. I can, yes. \$16,746.88.

Q. Have you given us all the adjustments?

A. No, sir.

Q. Well all of the deductions?

A. Yes.

Q. Now what additions/ did you make?

A. I added in the year 1910 the corporation tax paid in 1911 \$1,287.37.

Q. Anything else?

A. I reversed your interest charges increasing your expense by \$32.40 for the first two months, being February 28, 1906.

Q. Let's have the items?

A. I am giving them as far as I can, I reversed your interest by increasing expenses.

Q. What were the items?

A. Interest charges.

Q. For what?

A. On the treasurer's account, credits on interest and floating debts, miscellaneous credits.

Q. Can you give us these items?

A. The details?

3211 Q. Yes.

A. I can get them for you.

Q. Well will you?

A. Yes.

Q. How much do they amount to in the aggregate?

A. \$1,508.54.

Q. I don't understand just exactly just what that interest was that was interest that the company earned on balances?

A. Yes, and it is credited to the expense account.

Q. And that is where the company had earned some interest it had deducted it from the operating?

A. Yes.

Q. You took that out?

A. Yes, increasing expenses by that amount.

Q. Now what other deductions did you make?

A. That is all. I moved the federal tax, the corporation tax back from the year 1910 to the year 1909.

Q. Let's have the items on that?

A. \$1,447.61.

Q. That went back to 1909?

A. Yes, sir.

Q. What was the total of these deductions or additions to the operating that you made?

A. I increase your expense by \$2,795.91.

Q. Now deduct that from the \$16,746.88 will you please?

A. The result is \$13,950.97.

Q. That would run between two and a half and three cents a thousand for gas sold?

A. On one year it would be about two and a half cents, yes.

Q. And if you divide it by five it would decrease the operating about half a cent on the average?

3212 A. It would increase operating about half a cent.

Q. You don't increase operating by making these deductions do you?

A. If I put in these various expenses I would increase your expense by about half a cent per thousand over five years.

Q. But these things you put in you take out as a matter of fact?

A. Exactly, I reduce your operating expense by about half a cent over five years.

Q. Now you testified on your direct examination did you not as follows: "Now you may state what the fact is as to whether these figures which are the basis of your final averages are shown and were taken from the books of the company, actual operations of the company. A. In all cases subject to one or two minor adjustments."

A. Yes, sir.

Q. Are these what you refer to as one or two minor adjustments?

A. Yes, sir.

Q. You were not exactly right?

A. Yes, I would call these minor adjustments.

Q. And one or two?

A. Yes, sir.

Q. As a matter of fact you told us then didn't you, you went on as follows: "Q. What were these minor adjustments. A. The elimination of a charge made by the company for the expense of regulating rates in the city. The company charged that expense as an operating charge and I exclude it on the ground that it has nothing to do with the consumer." And then you also specified this item of federal tax and said that these were the two adjustments you had made?

A. And somewhere else in the testimony in regard to expense and in all cases referred to the interest, I said I excluded interest
3213 on bonded and floating indebtedness.

Q. Now what provision did you make for accidents and damages?

A. Made none.

Q. That was not right was it?

A. Yes, under the circumstances. We asked if any accident claims were outstanding and on August 18th, after this report had been prepared I received a list of claims. I inquired what liability attached to the company and got a response that none was admitted. I state in the report that an allowance should be made for accidents, no attempt to dispute that it should be.

Q. Of course there should be something for accidents shouldn't there?

A. Certainly.

Q. Before I forget it, how soon after you made your request about the accidents did you get the information?

A. I can't answer that. Mr. Sangster acting for me made the request several times.

Q. While you were there?

A. No.

Complainant moves to strike out what the witness says as hearsay.

Q. Did you yourself personal-y make any request?

A. No.

Q. Or anybody make any request in your presence?

A. No.

Complainant moves to strike out the testimony of the witness as

to such requests as being hearsay, secondary and not the best evidence.

Q. Now to get at what would be a fair charge for operation
3214 for these years there must be an addition of something made on account of accidents and damages.

A. If any liability exists certainly.

Q. Well you know don't you that whether there is liability today or not that there will be expenses of that kind?

A. Personally to be quite frank I would approve of an allowance being made in the accounts for damages.

Q. It would be a very fair way to put that to allow the amount that would be necessary to buy that insurance wouldn't it?

A. Yes, if you made an allowance equivalent to purchasing protection it would be quite fair.

Q. And that would have to be added to these totals and averages here on page 52x to get at what would be a fair basis to use in connection with the operation of this property wouldn't it?

A. Yes, provided your expense as already charged for accidents and damages is inadequate. You have an allowance—

Q. You have eliminated the accidents and damages?

A. Not altogether, no sir. Only in the first two months. I only eliminate in the first two months the accidents and damages that period applying to a former period.

Q. How much have you left in that you did not eliminate in the way of accidents and damages?

A. I left it all in except \$3,685.17.

Q. How much did it amount to in dollars, let's get what that is. You left in didn't you, if you will turn to Exhibit D of your report, \$4,506.84 in the five years aside from these two months?

A. No, I left in \$8,755.43.

Court: Where do you find that?

A. In Exhibit "D" second page.

Q. I read the wrong amount there. That covers the five
3215 year period except two months?

A. Yes, sir.

Q. You left claims undisposed of growing out of the operation during this period for how much?

A. \$151,500.

Q. Made no provision for them at all?

A. None at all.

Q. Now do you think that that is just exactly right?

A. No, I think a provision should be made for accidents.

Q. Well why didn't you make it then in making estimates of this cost for these various years that you ask us to take as a basis for fixing a rate?

A. I inquired as to what liability attached to these accidents and received no estimate.

Q. You have had some experience about such things haven't you?

A. Yes, sir.

Q. Well then don't you know the only way you can find out the extent of liability is at the end of a law suit unless you adjust it?

A. I do unprofessionally.

Q. You know that the suits would involve expenses even if no liability?

A. That is so.

Q. And you know that something ought to be added to these operating expenses on that account?

A. Yes, and said so on page 31.

Q. But you didn't attempt to make any estimate but made your estimate of what we would earn based on leaving these things out?

A. Yes, if perhaps you will permit an explanation that I received these estimates on August 18th after this report was prepared and

I was told I had to testify the following Monday that was
3216 I think August 21st. That would have involved the whole rewriting of this report, recalculating everything, that would have taken ten days.

Q. How soon after that did you learn we had adjourned for two weeks?

A. Several days afterwards.

Q. You still made no attempt to correct this?

A. I was otherwise engaged, had no time to attempt to correct it. I think I did the fair thing by you by stating the claim existed and should be considered.

Q. A fair way to get at that would be to ascertain what liability insurance would have cost for that period of five years there and then deduct from that the amount which we actually paid would it?

A. Yes, that would be very fair.

Q. Now then why didn't you take the general taxes and work them back the way you did the federal taxes?

A. I didn't observe that there was any outstanding liability December 31, 1910.

Q. I know, but you have a statement in here of the amount of taxes each year don't you? What page is that on?

A. 16.

Q. But haven't you these taxes in dollars and cents somewhere in your report?

A. It would be on Exhibit "D" I think.

Q. Now your taxes begin with \$13,000 and run up to \$27,846 that we paid in the year 1910 don't they?

A. Yes, sir.

Q. It is morally certain those taxes will not be any less isn't it?

A. That I don't know.

Q. You have never observed?

3217 A. They have a tendency to increase, I observe that.

Q. Then if you wanted to get at what would be a fair basis for taxes for instance when we are talking about making figures about the future, it would not do to take this average of four years which shows an increase of something like 100 per cent would it?

A. No, it would not do to take the year 1910 as compared to the year 1907, that would be hardly reasonable.

Q. And it would not do to say where the taxes had gotten up to \$27,846.06 in the year 1910 and where in the year 1910 the assessment has been increased enough to bring them up to \$31,000

for the taxes of 1910, do you think it is exactly fair in estimating future earnings to take not the existing conditions but the average of four or five years?

A. Yes, I think taking that average in conjunction with other averages it is quite reasonable.

Q. No, but just take that alone by itself. You are morally certain you would be low on the taxes aren't you?

A. That average will be a little low on taxes.

Q. Be too low on taxes?

A. It is liable to be low on taxes.

Q. You say it is liable to be. It is certain to be isn't it?

A. Almost I would say. I don't know local conditions, I would say almost.

Q. So that if we wanted to get something that would afford a fair and accurate basis for an estimate as to the future we ought to revise these tax matters ought we not?

A. No, unless you are prepared to revise all other matters in the same connection.

Q. Now when it came to the tax which the company would
3218 pay to the city on the ninety cent basis where future payments would be reduced you very carefully made that deduction of one fifth of a cent. One fifth of a cent a thousand would amount to about \$1,200 a year.

A. About that, yes.

Q. If it is worth while to take that into account where our taxes have increased in the last year from \$27,846 to about \$31,500 some four times that, and during these four years where you take the average the taxes have gone up from \$14,000 to \$27,000 do you think that ought to be taken into account too?

A. Yes, I think you are entitled to take into consideration any legitimate expense you show is going to be abnormally increased.

Q. Well don't you think you ought to have done it?

A. I was not aware your taxes were up.

Q. You knew what your report showed?

A. Yes, sir.

Q. You knew the report showed the taxes of \$13,978.44 in the year ending February 28, 1907, and the year ending December 31, 1910 they were \$27,846.06 just about twice that amount?

A. Yes.

Q. You knew that?

A. Yes, and if you take that in relation to the basis of sales you will find the jump is not in the same ratio.

Q. Oh I don't mean that it is, but what I am getting at is this I wish you would take these amounts here, our taxes for the five years and get the average for the five years, the average in dollars and cents. Don't do that for the present, maybe I can save that work. Turn over to your Exhibit "E" page 2, you will find taxes for the
year ending February 28, 1907, were 3.59 cents per thou-
3219 sand.

A. Yes, sir.

Q. Now for the year 1910 they were 5.24 cents per thousand?

A. Yes, sir.

Q. The difference is about one and three fourths cents, isn't it?

A. Yes, sir.

Q. Do you think it is exactly fair to us to very carefully deduct a decrease in taxes of one fifth of a cent and ignore an increase of one and three quarters?

A. Yes; I don't think it is unreasonable taking the average expense as a whole.

Q. But I am talking about this one item.

A. Well answering that, if I had been dealing with the one item, not all the other items, I would have given an increase in all probability.

Q. The only reason you resort to averages is because of the variation of these things up and down isn't it?

A. Yes, sir.

Q. We don't need to do that in the case of taxes where we know the variation is going to be one way.

A. It is not always one way according to this statement.

Q. Don't you understand what makes that difference in the per there, don't you understand why you get for instance in 1908 6.87, 6.52, 7.66 in 1909 for ten months?

A. I don't know why they drop in 1909 as compared with 1908.

Q. You know they assess once in two years?

A. I didn't know that.

Q. And the first year you pay under your new assessment you would find your actual rate in dollars increased and the rate per thousand would be increased naturally. Then if you stay on 3220 the same assessment and make any increase in sales there would be a little reduction naturally in your rate per thousand the next year?

A. Naturally.

Q. And then go up again. Didn't you know that?

A. No. I thought your assessments were every year as everywhere else.

COURT: These calculations made here are on a thousand cubic feet of gas.

A. Yes, sir.

Q. Now you know don't you that the taxes for the year 1910 are paid in the year 1911 in this state?

A. Yes, sir.

Q. I find here and I think that was shown by the testimony of Mr. Parker that the assessment of the company for taxation made in 1909 was \$1,184,200 and that the assessment made in 1911 was \$1,385,000. An increase of just about \$201,000? Now at the rate of ninety mills which was the old rate of taxation that tax would amount to \$31,162.50. I wish you would divide that by the sales in Des Moines, not Valley Junction and so on, but in the city of Des Moines and see what you would get for taxes?

A. 5.98 cents.

Q. Your taxes that are contained in this statement on page 5 include also two cents to the city don't they?

A. Yes, sir.

Q. So we would have to add two cents to that to make a comparison?

A. Yes.

Q. And that would give us 7.98 cents or substantially 8 cents?

A. Yes, sir.

Q. Now the tax that you took in your three estimates that
3221 you made of net return were 6.65, 7.22 and 6.78 were they
not?

A. Yes.

Q. So that they were all except the year 1910 more than a cent and a half under the present rate?

A. Then if we wanted to get at actual results, if a man was putting his money in he would want to add a cent or so on that score as well as adding something on the personal injury account to really make an estimate that he would want to bank on as to what his operating was going to be wouldn't he?

A. Yes, sir.

Q. And you think it is just as important to do that as it is to deduct the one fifth of a cent that you carefully deduct on page 6?

A. No. If I was investing in your plant I would like to see where I could reduce my expenses.

Q. If you were putting your money in you would want to be very sure however in your estimate of earnings and things of that kind that you had not got operating too low?

A. I would be very careful about it.

Q. Instead of being careful to exclude the doubtful items you would be careful to include them?

A. I would review them both.

Q. Now I want you to turn over if you will to your computation on page 7 for a minute. You base all of your results here on one year don't you?

A. Yes.

Q. And the year that is most favorable to your contention, that is right isn't it?

A. No, I didn't regard it as being the most favorable year. I took it as the last year.

3222 Q. You knew if you took an average of five years that the average net return would be lower than what you got the one year didn't you?

A. No, I did not.

Q. You did not.

A. I did not. I took the last year.

Q. You didn't make any computation of that kind?

A. No, I didn't. Took it for one year.

Q. Now turn to this table here on page 7. In the first place you include Valley Junction as well as Des Moines?

A. Yes.

Q. Of course that increased your net result some because they sell gas at \$1.50 in Valley Junction.

A. Yes.

Q. And that makes your calculation on Des Moines to that extent erroneous, that is based on incorrect premises.

A. It is impossible to base it on a correct premise, it is impossible to eliminate Valley Junction.

Q. Didn't you at Cedar Rapids eliminate the outside towns?

A. I have no recollection of what happened at Cedar Rapids.

Q. You could not say you did not?

A. I would not say I did or did not.

Q. How long ago was it?

A. Four years.

Q. You testified there?

A. Yes.

Q. There you eliminated outside towns?

A. I don't know.

Q. Without knowing whether you did or did not do it there, you think still it is impossible to do it.

3223 A. I don't think from judging this case on its own merits you could get a proper premise without Valley Junction.

Q. You have here a heading, total revenue. Now opposite the words total revenue you have—have you the actual revenue at Des Moines, \$538,893 or something that is estimated?

A. That is the actual figure.

Q. Taken off the books?

A. Shown by your books, yes.

Q. The \$482,532.34 is estimated?

A. Yes.

Q. You have operating expenses under the next line?

A. Yes.

Q. That means one thing in one column and another thing in the next column?

A. Yes, it does.

Q. Why is that put in there, to confuse?

A. No, not intended that way.

Q. It was done intentionally?

A. Not intended to confuse.

Q. Right opposite that same heading operating expense net you have in the one column operating expense without adding anything for depreciation and the other column operating expense plus depreciation.

A. Yes. The statement is estimated before adjustment and after adjustment.

Q. That adjustment refers to rate don't it?

A. Not altogether, no.

Q. What other adjustments were made?

A. This depreciation was added in as an expense.

Q. Then you have these operating expenses there they are not the actual operating expenses shown on the books are they?

3224 A. \$346,000?

Q. Yes.

A. No they are slightly adjusted in 1910.

Q. They are less than the books show?

A. They are I thinj—yes, they are a little.

Q. And then when you say net revenue available for interest and other charges \$192,107.65, that is not correct is it. You would have to take out depreciation first.

A. Yes, you would.

Q. So that you can't look from one of these columns to the other and compare these figures that have the same heading and make a fair comparison can you?

A. Not without reading the context.

Q. You can't anyway compare these figures, you have got to make some computations because net revenue available for interest and other charges as to one column means one thing and another column means another.

A. It does, yes.

Q. There is another thing here I notice that you don't seem to have taken into account. The new ordinance don't provide for a penalty in the event of a failure to promptly pay the bills.

A. There is no penalty.

Q. That will increase the expense of collection won't it or increase the loss on account of bad debts?

A. I don't know that it will.

Q. Have you ever had any experience in the gas business?

A. No.

Q. Have you the remotest idea why the practice is to impose a penalty if bills are not paid promptly.

A. I know there is a penalty imposed in certain towns.

3225 Q. Have you any idea as to why?

A. In order to get the money in promptly.

Q. To decrease loss and decrease the cost of collection, you can't imagine any other reason for it?

A. That is what I would understand would be the reason yes.

Q. When you take that out you have got to add expense haven't you something of that kind?

A. I don't know that would make any appreciable difference to your expense.

Q. Don't you think it would make about as much as one fifth of one cent per thousand which you carefully deducted on account of these taxes?

A. It might. It would all depend on how good a collection department you had. There might be additional loss, it would not be very serious, however.

Q. It is an expense item you have not taken into account?

A. I have not.

Q. And that would have to be taken into account if we want to get a correct conclusion?

A. Provided it can be demonstrated there is an extra expense there.

Q. Have you enough experience *with* the gas business to know?

A. I would not like to say definitely, no.

Q. Would you if you were an investor say here I will put my money in and just assume there won't be any expense unless you can demonstrate there will be, is that the attitude of an investor?

A. No, if I was an investor I would look into the matter very carefully.

Q. In other words, you have not made a report here such as you would make to a man that was going to buy some bonds have you?

3226 A. Yes, substantially, in a certain way it is and a certain way it is not.

Q. This is not the kind of report you would make to a man if he wanted to know what he could rely on if he was going to buy some bonds?

A. No, I would not report along the same lines at all.

Q. You would not throw out all these detailed items of operating would you?

A. It would altogether depend, if I was endeavoring to show the man what he could make in operating this business I would proceed very much along the same lines I have here.

Q. Would you deduct from the operating an item like one fifth of a cent and ignore an item like two cents, would you ignore an item like this accident and damage and ignore an item like Valley Junction that would amount to about a cent?

A. I have not ignored the item of accidents and damage.

Q. You have no computation with reference to that part of it?

A. Yes, but I state in the report you are entitled to it.

Q. Valley Junction would amount to another cent wouldn't it?

A. No, I don't think quite. About .7 of a cent is my recollection.

Q. You have made a computation on it?

A. Yes, which I worked out in this report.

Q. Whereabouts will we find that?

A. On page 20.

Q. Your report shows that your estimate on ninety cent gas is that the income will be 90.70 cents?

A. Assuming Valley Junction at \$1.50.

Q. Pretty near one per cent.

A. Three fourths of one per cent.

Q. You have added one per cent of ninety cents, that would be what? .9 of a cent?

3227 A. Yes.

Q. So you have added $7/9$ of .9 of a cent to the gross revenue then?

A. Yes, sir.

Q. Too much bother to take it out?

A. No.

Q. Have *tp* come out before we could get an accurate result here wouldn't it?

A. No, I don't think you can disassociate Valley Junction with Des Moines.

Q. Suppose Valley Junction reduces the price and in the mean time you had fixed a rate here relying on excess earnings out at Valley Junction?

A. If Valley Junction reduces the rate you have got to consider that.

Q. Otherwise you can't rely on the excess earnings of Valley Junction to sustain your Des Moines rate, that is what you do in your report.

A. Not to any appreciable extent.

Q. About one per cent?

A. Not if you pro rate your investment between the two properties I don't think you get one per cent on it.

Q. But in your income here?

A. The income is higher on account of Valley Junction certainly.

Q. Who invested this method of using the low items and getting low operating expense for the year that you have adopted here?

A. That is my own.

Q. You invented that?

A. Yes, sir.

3228 Q. Invented this in this case?

A. Yes, sir.

Q. Never tried it before?

A. Not that I recall.

Q. Now will you turn that around for me, pick out the highest things you could get here out of operating, get the highest operating you could get or do you think that would be fair?

A. Distribution.

Q. Well take manufacture what is the highest there?

A. The highest there is 36.89 in 1907.

Q. The highest in the balance is in the year 1910?

A. Yes, sir.

Q. It would be a good thing to put these together wouldn't it?

A. Yes.

Q. That would be fair wouldn't it?

A. No, I don't think it would.

Q. You have just reversed it haven't you?

A. No, I don't think I have exactly.

Q. The expense for the two months to February 28, '06 making up the 67.13 there, 36.82 for manufacturing the balance 30.31 are they not?

A. Yes.

Q. And the next year that balance deducting the manufacturing—take the year 1907 you have 6486 as the total and the balance after deducting the manufacturing is 27.97. That is right isn't it.

A. Yes.

Q. In 1908 your balance of your 63.49 after deducting manufacturing is 28.36?

A. Yes.

3229 Q. And in 1909 the corresponding balance is 26.35?

A. Yes.

Q. And ten months in 1909 32.17?

A. Yes.

Q. Average for the four years to December 31, 1909, 28.77 cents.

A. Yes.

Q. In the year 1910 35.43 cents?

A. Yes.

Q. And for the average of the five years it is 30.30?

A. Yes.

Q. Now then when you came to make your estimate of return here you took that low manufacturing in 1910 the lowest there was in the whole period?

A. Yes.

Q. And then you took the *varage* for the four years up to December 31, 1909, 28.77 which was lower than the manufacturing for the year 1910, and lower than the average for the five years didn't you?

A. Yes.

Q. Now add those two together will you please 29.76 and 28.77.

A. 58.53.

Q. So you took as a basis a cost there that was lower than anything that the company had ever experienced didn't you?

A. Yes, sir.

Q. Thought that was fair didn't you?

A. Yes.

Q. If you were putting your money in that is the way you would do wouldn't you?

A. I would figure that way among others.

Q. You would rely on that if you were making a report
3230 to somebody about somebody you would make your report like that?

A. Yes, I would.

Q. Never did before?

A. Never had occasion to.

Q. Never have done it?

A. Not so far.

Q. You have made reports to people buying bonds or contemplating it?

A. Yes.

Q. Did you ever in estimating operating expenses in such report pick out low items like these and put them together?

A. No, I never had to.

Q. What do you mean by had to, do you mean you had to here in order to get the results you wanted?

A. No, I do not.

Q. Do you know what made that low manufacturing in 1910?

A. Yes, a considerable reduction in the price of oil and other expenses, general improvement in the art.

Q. Your report shows what made it don't it?

A. Yes.

Q. What page?

A. Page 11.

Q. Now then I wish you would tell us what the average cost of oil was per thousand for the four years preceding 1910?

A. 15.75.

Q. What was it in the year 1910?

A. 11.49.

Q. Now what is the difference?

A. 4.26.

Q. I wish you would subtract that difference in the price of oil from the average manufacturing cost for the five years, what do you get?

A. 28.78 cents. 4.26 from 33.04.

Q. The average cost of oil for the five years ending December 31, 1910 is what as shown by your report?

A. 14.78.

Q. The cost in the year 1910 was what?

A. 11.49.

Q. What is the difference?

A. 3.29.

Q. Now subtract that from the cost of manufacture for the five years 33.04, what do you get?

A. 29.75.

Q. Then what do you get as cost of manufacturing in the year 1910.

A. 29.76.

Q. The difference is .01 of a cent isn't it?

A. Yes.

Q. So that the difference between the average cost of manufacture for the five years and the cost of manufacturing for the year 1910 is accounted for by the difference in the cost of oil with the exception of .01 of a cent?

A. Yes.

Q. Now under these circumstances do you say that this average manufacturing costs are abnormal?

A. I don't say so and never did.

Q. The average manufacturing cost for the five years are 33.04 cents aren't they?

A. Yes.

Q. And for the four years ending December 31, 1909, they are about one cent higher?

3232 A. Yes.

Q. Now what is there then that justifies you in taking as the basis this abnormally low manufacturing cost and tying it up to the lowest aggregate of the other costs you could find out of these three columns?

A. The fact that you have been able to reduce manufacturing cost to 29.76 justifies us in taking that figure, that is your actual cost that year.

Q. Then did you apply the same theory, work the same line out or did you take it only where reduced?

A. No, I disregarded the total distribution in 1910 because an abnormal year as compared to preceding years.

Q. If you will take that item of oil out the total cost there of operation for 1910, 65.19?

A. Yes.

Q. Now deduct this difference in the price of oil between that year and the average for the five years which is 3.28?

A. 3.29. Leaves a balance of 60.05 of a cent.

Q. Oh no it don't.

A. Taking 3.29 from 63.94?

Q. But I told you to take it from 65.19?

A. 51.09.

Q. Then if you take this item of oil out of that which was abnormally low that year compared to these other years you find that the year 1910 is lower than any other year that you get there don't you or any other average?

A. Except the year to February 28, 1909.

Q. Now then let's try this one other way. Take the difference between the price of oil for the four years ending December 31, 1909, which was 15.75 cents per thousand cubic feet and its cost 3233 per thousand for the year 1910, 11.49 you have 4.26 cents don't you?

A. Yes.

Q. Now if you deduct that from the expense for the year 1910 you will get a result that is lower than your average for the four years, lower than your average for the five years won't you?

A. Yes.

Q. And this one item is lower for that year than it is for any other period there.

A. Yes.

Q. Now then what was there in these expenses for the preceding four years that made you say that their aggregate as against the aggregate for 1910 was normal?

A. The general appearance, running about an average, running even general appearance would indicate quite normal expenses.

Q. Well general appearance is pretty vague. Did you analyze the expenses of this company for any other of the other years?

A. We investigated them in a general way.

Q. Did you analyze the expenses of this company for any other years of its existence?

A. Only in a general way.

Q. So in saying these were normal you only took one other year to compare them with?

A. Yes.

Q. You called attention to some extraordinary expenses as you called them in 1910 didn't you?

A. Yes.

Q. That is some expenses on account of lowering mains because the city changed the grade of streets?

A. Yes.

3234 Q. That of course would involve changing all the services and would run that item up?

A. Yes.

Q. Now do any of these other years include expenses of that kind?

A. Not so far as I observe them.

Q. They are expenses that may occur?

A. They may yes.

Q. And an average that don't include something on account of those expenses would not be a sound basis for conclusions as to the future would it?

A. No they are reasonable annual expenses.

Q. And the averages you have taken do not include them do they?

A. Don't include any such large items, they include ordinary work connected with mains and services.

Q. If we relied upon such computation when these large items came we would not have any money to pay them with.

A. Oh I don't know; I think you might.

Q. It would be fairer wouldn't it to take an average that included a year that did involve these items as well as years that did not involve them?

A. Yes, that is why I took an average of five years, considered it a fair thing to include that expense in the average.

Q. The fairest way to get at the prospective operating expense is to take an average over a period of time isn't it?

A. Yes.

Q. But that is not the method which you adopted in figuring out your return here is it?

A. Yes, I did take an average over a period of time.

Q. Did you?

A. Yes, in operating expenses.

Q. In which computation, point out the computation
3235 based on an average over a period of time?

A. Page 10 and again on page 20.

Q. Let's take them one at a time. The first computation is based on the year 1910 isn't it?

A. Yes.

Q. The next one is not based on an average for any period is it? It is based on taking the lowest manufacturing cost you could find and then tying that up with an average for four years of 28.77 isn't it?

A. Yes.

Q. So that is not based on an actual average of any series of years?

A. Based on actual average as regards operating, distribution expenses.

Q. And taking the low item for manufacture?

A. Yes.

Q. The next computation there is not based on the average for any term of years?

A. Not as you term average no.

Q. Now is there any computation that there is here in your report that is based on an average for a term of years?

A. Not as you reason averages.

Here the further hearing was adjourned until 9:30 a. m. tomorrow.

3236

Thursday Forenoon Session

SEPTEMBER 14, 1911—9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JAMES HALL, continuing his cross examination, examined by N. T. Guernsey, Esq., testified:

Q. Now, yesterday morning on your direct examination, or day before yesterday, Mr. Hall, you referred, on page 3121 of the record, to the item of donation to J. Haines, \$711, and afterwards you made some changes. How did you come to make that original mistake.

A. Improper understanding of the entry as it appeared on our notes.

Q. Then you were just testifying from some notes?

A. Exactly.

Q. Did you ever see the voucher yourself?

A. I looked up the voucher after the testimony was given that night.

Q. But prior to that you had never seen the voucher?

A. No, sir.

Q. And that is true of most of those vouchers?

A. It is.

Q. And you are simply testifying from notes made by your subordinates and not from your own information?

A. Yes, sir; that is so.

Q. And you are not testifying from your own information about these vouchers or books?

A. That is so.

Q. Now this voucher showed just exactly what that Haines transaction was, didn't it?

A. Yes.

3237 Q. And it was accompanied by a receipt filed with the voucher, there was a receipt from each person to whom a part of the \$711. had been distributed?

A. I didn't check them up; it was accompanied by a number of receipts which I didn't examine.

Q. Well didn't you think to make such an examination as you said was proper it would be necessary to run through and see where that money had gone?

A. No, I did not; to run through in detail, no.

Q. Now you found out when you came to investigate that the Company distributed this amount, giving to each of its employes on Christmas an edollar for each year that the employe had been in the service of the Company?

A. Yes.

Q. And accompanying the voucher, the original voucher for \$711. were apparently receipts from each one of the employes for the amount given to him?

A. Yes.

Q. Do you think there was anything improper in that item?

A. I didn't suggest it.

Q. And your original suggestion that it was *was* due to a misapprehension on your part?

A. Entirely.

Q. Now, then——

A. Pardon me, I don't think I ever suggested that the item was irregular at all or improper.

Q. You referred to it in your testimony as a donation, didn't you?

A. I think I referred to it as a bonus.

Q. I will refer to the record and see what you did say. Item "Donation to J. Haines \$711."

3238 A. Yes.

Q. Now is that the way it was described on the memorandum from which you were testifying?

A. Yes.

Q. Then of course that memorandum was wrong?

A. It was incomplete.

Q. Well it was wrong?

A. Yes I would call it wrong.

Q. It was grossly wrong in the inference it carried?

A. It was grossly wrong to accept that inference from it, but my inference was corrected; it was partly my own fault accepting that interpretation.

Q. What I am getting at is this: have you checked up this other memorandum from which you are testifying?

A. Yes, a great part of it in totals, yes.

Q. Have you checked this other memorandum from which you are testifying?

A. Not all, no.

Q. Have you checked one per cent of them in detail?

A. I don't think I checked any in detail.

Q. So that there is a possibility of other errors of this same kind in the construction of the items?

A. That is always possible.

Q. That possibility is very much increased where it is second hand; an inference is drawn from an inference of somebody else?

A. There is always that danger, yes.

Q. Did you make any of the figures in this report?

A. Yes, I wrote the report and made the figures.

Q. Well by that you mean, don't you, that you drew conclusions?

A. I drew conclusions—I wrote them up from the statements submitted.

3239 Q. That is, you checked, take for instance these exhibits back here, you didn't make all those figures, did you?

A. No.

Q. And did you make this chart?

A. No.

Q. Who made that?

A. Mr. Sangston.

Q. He was one of your assistants?

A. He was in charge of that work.

Q. In general he did the work on the books, didn't he?

A. Yes.

Q. And made the figures and you made the computations from the figures and drew the conclusions, and so on?

A. Yes.

Q. Now I want to take up these figures here on depreciation for a moment. I think it is on page 17 that I want to refer to. Now you have a total there on the middle of the page?

A. Yes.

Q. And that is intended to justify your six cents as showing that taking into account the other repairs you will get somewhere near from ten to twelve cents, as you said above?

A. Yes.

Q. Where did you get that ten to twelve cents?

A. That is my understanding what a reasonable allowance would be for repairs and up-keep.

Q. Who told you?

A. I don't know that anybody told me in particular in this plant. I discussed the matter with Professor Marks what it should be when we were making this up; and of my own knowledge that is
3240 generally considered in my experience as a fair allowance.

Q. Now Professor Marks suggested that six cents was the right figure, did he?

A. No, I suggested six and we talked it over generally, and he said he thought it was all right.

Q. Your experience in gas cases has been rather limited?

A. You may call it that.

Q. Three or four cases?

A. Three or four cases.

Q. Your experience is not broad enough to give you a basis for forming a conclusion, is it?

A. I have passed judgment on depreciation as charged in accounts generally.

Q. Well, most of them do not have earnings enough to charge off depreciation?

A. Most of them there is not.

Q. Well, most of them haven't earnings enough——

A. No, most of them claim there is no such thing as depreciation.

Q. Well, we will pass that now. You made up this table on this page?

A. Yes.

Q. Now will you turn to Exhibit E and tell us what the repairs works were for the two months ending February 28, 1906?

A. 2.06 cents.

Q. And what did you put them in on page 17?

A. 2.32.

Q. That increased that and helped to get you up to your average?

A. No, that was the correct average taken on the basis of sales, making a uniform standard.

Q. How does it happen that your repairs works as you state 3241 it on Exhibit E is one figure and as you state it on page 17 it is another?

A. It is got by taking different divisors. In Exhibit E it is the quantity manufactured and on page 17 the divisor is the quantity sold.

Q. Then you do not take the divisor that is ordinarily taken, on page 17?

A. I took the divisor that would bring that up to the standard, the same basis.

Q. The same basis as what?

A. Uniform basis of cents per thousand sold.

Q. Of cents per thousand sold?

A. Yes.

Q. What do you mean—do you mean that over here on Exhibit E you get at your pers for the manufacture, and dividing by one divisor in one case and another in another?

A. I give the cost, taking the quantity manufactured, and the cost of gas distributed, taking the quantity distributed.

Q. When you get back to your Exhibit E, you got your repairs works by dividing the actual amount, which we will find in Exhibit E, by the amount of gas manufactured?

A. Yes.

Q. If you adopted that figure that would have brought your total of six cents and something down lower than you have it?

A. It would, yes.

Q. And it would have been further away from your average, as stated above?

A. Which is upon the wrong premises.

Q. Now do you know of anybody else that has worked out this repairs works in two methods in the same report without 3242 calling attention to the difference so that people won't be misled by it?

A. No, I don't think there is any intention to mislead. I think it is quite clear here. It states it is on the basis of sales.

Q. Now what statement do you refer to, the statement that shows you adopted a different method here?

A. It does not directly point out a different method. It is clear this is made up on the basis of sales.

Q. Tell me the statement contained in your report that points out the difference so that we may know the repair works is pointed out in any one place?

A. It is not pointed out specifically.

Q. Is it pointed out unspecifically, or at all?

A. No, it is quite obvious.

Q. That would make a difference of 2.7 cents there?

A. Yes.

Q. Setting and removing meters, how did you get that into your repairs; that is not a repair item?

A. It is my understanding it is. You take out an old meter and put a new meter in and you are repairing the property.

Q. Will you tell us some classification that warrants that conclusion?

A. I don't think I can.

Q. There isn't any?

A. I haven't seen it.

Q. You never heard of that item being treated that way before?

A. I think I have. It is my understanding from the city engineer and Professor Marks that is all right.

Q. You got that from Professor Marks too?

A. Yes.

Q. Turn over to Exhibit E and you have repairs meters in one place?

3243 A. Yes.

Q. Then you have setting and removing meters as a separate item and not as repairs?

A. Yes.

Q. You say you checked these over carefully with the vouchers and the books to see that they were right?

A. Yes; they were checked over, yes.

Q. Now, then, did the vouchers in the way of setting and removing meters covering that item show a dollar spent for repairs?

A. I can't answer it; I didn't see the vouchers personally.

Q. So that at the suggestion of Professor Marks you added this item that was not a repair to these repairs?

A. I am not advised by Professor Marks that is a correct classification for it.

Q. Did you look at any classification?

A. I have seen all the classifications one time or another.

Q. You know none of them are treated that way?

A. It is not specifically called repairs.

Q. It is not repairs?

A. I couldn't tell.

Q. You don't know whether this is proper repairs or not?

A. I wouldn't like to say.

Q. Still you put it in here as repairs because Marks said so?

A. Yes.

Q. Did you go over your report before you made it, with Marks and fix it up with him?

A. No, he has never seen it. I discussed these questions I had any doubts on with Professor Marks.

Q. If you take your .27 cents on repair works and your .97 cent for setting and removing meters, which is not repairs, you

3244 have a total of 1.24 cents?

A. Yes.

Q. That should be deducted from your 4.82 if you want to get the actual repairs for that period?

A. No, I wouldn't concede that at all. I might concede meters, knowing nothing to the contrary, but I won't concede the other.

Q. You think for the purpose of this computation repairs works

should be taken as 2.32 cents and for the purpose of Exhibit E should be taken as 2.06 cents?

A. Yes.

Q. And for every other purpose in the report it should be taken as 2.06 cents?

A. Yes, but that is adjusted on account of the leakage.

Q. Now, then, will you take 1.24 from the 10.82 and tell us what we have there instead of 10.82?

A. 9.58.

Q. Now, then, referring to Exhibit E, will you tell us what repairs works were for the next period?

A. 2.32.

Q. You have them 2.49?

A. Yes.

Q. The difference is .17 cent?

A. Yes.

Q. You add .82 cents for setting and removing meters?

A. Yes, sir.

Q. That makes .99 cent?

A. Yes.

Q. Now deduct that from the 10.88.

A. 9.89.

Q. In the next year what are the repairs works?

3245 A. 1.46.

Q. You put them in at 1.55?

A. Yes.

Q. And the difference is .09?

A. Yes.

Q. And you have them setting and removing meters 1.04?

A. Yes.

Q. Making a total of 1.13?

A. Yes.

Q. Will you deduct that from the 10.61?

A. 9.48.

Q. For 1909 your repairs works is 1.28?

A. Yes.

Q. Over in Exhibit E it is 1.21?

A. Yes.

Q. And that is a difference of .07?

A. Yes.

Q. Then you have added there on account of setting and removing meters 1.13?

A. Yes.

Q. And that makes 1.20?

A. Yes.

Q. Deduct that from the 10.45?

A. 9.25.

Q. Now take the next period you have, 2.03 for repairs works, and Exhibit E shows it 1.91?

A. Yes.

Q. That is a difference of what?

A. .12.

Q. And then you have 1.33 for setting and removing meters?

3246 A. Yes.

Q. That makes a total of 1.45?

A. Yes.

Q. Deduct that from 11.78?

A. 10.28.

Q. For 1910 you have 2.67 for your repairs works; what does Exhibit E show it?

A. 2.55.

Q. A difference of .12 cent?

A. Yes.

Q. For setting and removing meters you have 1.01?

A. Yes.

Q. Total 1.13 cents.

A. Yes.

Q. Deduct that from the 13.42?

A. 12.29.

Q. Now what will that give you as an average for the four years where you get 10.89?

A. The average for the four years, 9.69.

Q. And the average for the five years?

A. 10.30.

Q. So that in either event we get under an average of from ten to twelve cents and to that you add six cents?

A. Yes, sir; on your basis.

Q. You don't say your basis is right?

A. If my information is correct.

Q. You mean Professor Marks says it is right?

A. Yes.

Q. So far as you yourself know, it is not?

A. Allowing for the setting and removing meters, I think it is?

3247 Q. You don't know of any good reason for calling setting and removing meters repairs?

A. Admitting that, I would take a cent off the estimated allowance.

Q. You don't know of any good reason for calling setting and removing meters repairs?

A. I am prepared to admit that, but I would make an allowance for that in making the computations.

Q. In order to get us up to the average of ten or eleven cents you would have to add a cent to your depreciation?

A. No sir, if I found I made a mistake in the setting and removing meters I would make that allowance.

Q. While on this matter of depreciation, you referred a good many times or at a considerable length of time in your direct examination to an item of \$264,108.28; that was continually referred to as charged to depreciation; you remember that item?

A. I remember that item, yes sir. I don't think I have referred to it as being charged to depreciation.

Q. On page 3139 of your direct examination you testified: "Q.

Now right at that point did you find or were you able to ascertain just why \$264,108.78 was charged off for depreciation? A. I don't know why it was done." Now that would be an inference that was charged to depreciation?

A. No, I don't think so.

Q. What do you say to this, on the same page: "Q. In other words, they took their surplus, what appeared to be surplus earnings and wiped it out by charging it up to depreciation? A. Yes, sir." Would you say that carries the inference that was charged to depreciation?

A. No.

Q. I want to know whether you think that this question 3248 stating that this was charged up to depreciation, and your answer, "Yes, sir," would carry the inference that it was charged to depreciation?

A. It couldn't be charged to depreciation.

Q. I am not talking about what was done as a matter of fact.

A. I wouldn't consider that at all.

Q. You would not infer from the question and answer I just read, which I will read again: "Q. In other words, they took their surplus, what appeared to be surplus earnings and wiped it out by charging it up to depreciation? A. Yes, sir." You wouldn't say that would lead to the inference, if a man was reading your testimony, that was charged to depreciation?

A. No, I would not.

Q. Now, you go on a little further on page 3140 and you say: "Q. Your depreciation account for the whole 16 years was only \$245,000? A. Yes, less for the 16 years than they make for the three years. Q. They wiped out more in three years than you did the whole 16? A. Yes, sir." Is it exactly fair to compare three years to the 16 years in that way?

A. I am not attempting to compare it. They reduced the property more in that period than I did in 16 years.

Q. How much did you charge up to depreciation in that three year period, that is covered there, which is something more than three years?

A. About three years and four months.

Q. That would make your figures, your charges for depreciation, of course, run higher in the late years than in the earlier years, on account of increased sales?

A. Yes.

Q. So that it would not be fair to compare three of the 3249 later years with the 16 years as an average?

A. There is no comparison suggested.

Q. I didn't ask you that. It would not be fair to make such a comparison?

A. Certainly not.

Q. Now on page 3140, take this question: "Q. But in the sworn statements they have made for the last two years and made since that depreciation charge appeared on the books, has it appeared in any of these statements? A. Not so far as I have seen them. Q. I mean so far as you have been able to find? A. No, certainly has

not appeared in the federal tax statement, be no tax to pay if it did." Do you think that would lead a person reading your testimony to infer that amount had been charged to depreciation?

A. No, I don't think it would.

Q. Now, in the next place, what statements did you examine—you were asked whether it appeared in any of those statements?

A. Do you refer to the federal tax statement?

Q. I want to know what you are talking about here in the question "But the sworn statement they have made for the last two years and made since that depreciation charge appeared on the books, has it appeared in any of these statements?" A. "Not so far as I have seen them."

A. I saw no statement; the question was asked in regard to the federal tax statement.

Q. I want to know what statements you referred to?

A. I had in mind the federal tax statement.

Q. Did you see any of the statements?

A. No.

Q. Did you see the federal tax statements?

A. No; I saw the Company's receipt for one payment.

3250 Q. You never examined any of these statements?

A. No, I haven't.

Q. Has anybody else examined them and told you what the statements contained?

A. No.

Q. Now, then, as a matter of fact that was not charged on the books to depreciation?

A. No, it was not.

The MASTER: That \$264,000?

Mr. GUERNSEY: Yes.

A. It was charged to the plant account.

Q. Have you copies of the entries in the books?

A. Yes.

Q. Will you let me see them?

A. Yes.

Q. Now with reference to this item, all that you have here indicating what appears on the books is this: Profit and loss \$264,108.78. Now the next line, property and plant, \$264,108.78. Now the first amount there on the first line appears on the left hand side and the second amount on the right hand side, and following that "to close balance of account." I read that correctly, did I?

A. Yes.

Q. Now is that all that appears on the books with reference to this item?

A. Yes.

Q. All the rest of your testimony about that is more inference?

A. Not altogether.

Q. It is not a statement of what the books show, is it?

A. No, it is an interpretation of the books.

3251 Q. Yes, inference. Now then, turning to your report, can you tell us roughly how much you think you should have

charged off on the property account on that date, to bring it down to what you claim is right?

A. No, I am making no claims as to what should have been charged off.

Q. You are talking here about water and things like that; didn't you mean your testimony to be understood as a criticism of those things?

A. Not at all. I have no objection to watering, if you care to call it that.

Q. Now, then, to go back, in your judgment what should have been charged against the property account, or credited to the property account—that is right, isn't it?

A. Yes.

Q. As of the date of this entry to bring that property account down to what you say was the value of the property?

A. I have no views on it at all.

Q. You haven't?

A. No, sir.

Q. You absolutely know nothing about it?

A. I do, but it is a matter for your own judgment as to whether you care to write down the value of the property as you have it or not.

Q. I am not asking for your recommendation or judgment, but you have in your report charged off to beat the band, to be a little slangy.

A. I have excluded items which did not appear to have any tangible value.

Q. Now if we had been attempting to charge off what you 3252 have called water in the stock, how much would we have had to charge off of profit and loss and credit up to the property account at the time the entry was made?

A. Approximately \$2,300,000.

Q. Do you think there was any impropriety in this entry?

A. I do not suggest it. I am not suggesting there was any impropriety.

Q. So far as you know, it was an absolutely proper entry?

A. I have no reason to doubt it at all.

Q. When was it that you paid so much attention to this on your direct examination, and why was it you called attention to the fact that this was on a page that was inserted, if you regarded the entry as an entirely proper entry, and did not want us to infer there was something wrong there?

A. I simply stated the facts.

The MASTER: I would like to see the copy of that letter directing the entry.

A. Here is an extract from the letter. (Witness hands paper to Master.)

Q. Where did you find the letter directing this entry?

A. In the files.

Q. Whereabouts?

A. I haven't any idea; it was got out for me.

Q. By whom?

A. One of the men over there.

Q. Did you ask for it?

A. Yes, sir.

Q. How did you come to ask for it?

A. I wanted to know the authority for making the entry.

Q. Why did you want to know that?

3253 A. Out of curiosity.

Q. It was not such an entry as would be made by the book keeper in the ordinary course of business without some authority?

A. Certainly not.

Q. He ought not to make it without specific and definite authority?

A. Very definite authority.

Q. That was what I was getting at—you were asked whether this entry was not made by order from Philadelphia; now who makes the entries, the man that keeps the books, don't he?

A. Yes.

Q. He has no authority to make any such entry unless somebody gives him specific instructions?

A. No, sir.

Q. It would be absolutely wrong to do it?

A. It would.

Q. Was there any impropriety to your mind in his receiving instructions as to this entry from the treasurer of the Company?

A. None.

Q. That would be a very natural and proper thing, wouldn't it?

A. Certainly.

Q. In fact, if you had found the entry without some such authority, you would have said the entry was suspicious?

A. I would, yes.

Q. So that you referred to this letter and read the authority from the letter into the record in order to show there was nothing suspicious to this entry, didn't you?

A. Exactly.

Q. We have been discussing principally some of the factors that go into these operating costs and depreciation; now from the basis of the computation which you refer to on page 8 is it not?

3254 A. Yes.

Q. Now you say here, first, that the expense of operating the property for five years would indicate that the year 1910 was abnormally high. Now if you were putting your money in, you would want to have an estimated operating basis on high years as well as low years?

A. I would.

Q. That is the only fair way to do it?

A. Yes.

Q. Now do you remember in the Cedar Rapids case you based your estimate on five years and protested or criticised the estimate of the Company based on two years as wrong and based on not long enough a time?

A. I am sorry, I don't recall anything about Cedar Rapids.

Q. Passing that, to look it up, you say on page 8, the average distributing and other expenses for the four years immediately preceding 1910, and also for the five years including 1910 can more reasonably be regarded as indicative of normal conditions. We have therefore prepared computations to be afterwards explained taking the manufacturing cost for 1910 and added the average distribution and other expenses just referred to. That is the basis which you took for computing your net income?

A. Yes.

Q. That is correct?

A. Yes, sir.

Q. Did you make the figures yourself?

A. Yes.

Q. I will ask you now whether you testified—I am reading from page 529 of the record of the Cedar Rapids case, in the case
3255 of the Cedar Rapids Gas Light Company against the City of Cedar Rapids, Iowa, at the October term of the District Court of Linn County, Iowa, when that case was tried—I think at the city of Marion——

A. No that case was tried in the city of Cedar Rapids.

Q. I will read several questions and answers: "In your report Exhibit K-2, I notice you have taken a period of five years, while Mr. Kellogg has taken the books for a period of two years only; which is the proper method——

Objection.

(Question continues) in order to show or ascertain the true cost of the manufacture and distributing gas as shown by the books? A. For the purpose of determining the cost of any article such as gas, or determining the duration of any factor the period of five years is generally recognized as standard. The period of two years does not represent the operations of the company fairly and accurately." Did you so testify?

A. I remember very little about the case.

Q. Is it true, as you stated in Cedar Rapids, that the period of five years is generally recognized as a standard?

A. Five years, yes, except under exceptional conditions, five years is regarded as a fair average.

Q. If you had taken five years here you would have gotten a less return?

A. I took five years for your operating, but your manufacturing is slightly different.

Q. Did you testify: "Why is that the case? A. In a year or two years there may be extreme charges. For example, in this case the fittings account in the years 1905 and 1906 are very heavy. They ought to be spread over a series of years, and it is not expected that five years will cover such heavy charges. Q. Take the period
3256 of two years as Mr. Kellogg has done, instead of five years, what effect will that have in showing the general result as cost applied to the manufacture and distributing of gas? A. It

shows a much heavier cost; it shows forty-five cents more on an average of five years." Did you so testify in Cedar Rapids?

A. I presume so if it is there.

Q. Do you remember whether you did so testify or not?

A. I don't recollect what I did.

Q. It is true, however, is it not, as stated here, if you wish to get results that are reliable you must take a period long enough to cover high years as well as low years?

A. Yes; of course there is exceptions.

Q. It depends on what you want to show, don't it?

A. Not always, no.

Q. Now, then, I wish you would do something else for me. Take this table on page 5 and will you please—leaving out the two months' period because that is short—I wish you would pick out the highest item for manufacturing, that is the first thing there and the lowest?

A. The highest is 36.89.

Q. What is the lowest?

A. 29.76.

Q. Now, then what is the highest item on distribution and the lowest?

A. The highest is 8.49.

Q. The lowest?

A. 4.67.

Q. Now then what is the highest on commercial expenses and the lowest?

A. The highest, 9.01.

3257 Q. The lowest?

A. 7.31.

Q. Take the next item, new business, the highest and lowest.

A. The highest 4.76.

Q. The lowest?

A. 2.96.

Q. Now take the next item, general expenses?

A. The highest 4.90.

Q. The lowest?

A. 2.19.

Q. Take the next item taxes?

A. The highest 7.22.

Q. The lowest?

A. 5.56.

Q. The next item, leakage?

A. 2.78 the highest.

Q. The lowest?

A. 1.35.

Q. Now will you foot these columns and let me know what your totals are?

A. The highest 74.05; the lowest 53.80.

Q. Now, then, what is the smallest credit on account of miscellaneous sales?

A. .01.

Q. Will you deduct that from the high total there?

A. 74.04.

Q. The greatest credit on account of miscellaneous sales?

A. .08.

Q. Now, Mr. Hall, in order to tabulate this so it will be easy to get into the record, will you take either your copy or mine
3258 and read the account and figures into the record?

A. I will make a copy of it and he can copy it into the record.

Q. This memorandum showing the highest and lowest, I will ask you to hand to the reporter and ask him to copy it into the record.

A. Yes.

(Presents memorandum to reporter).

The memorandum is as follows:

	Highest.	Lowest.
Manufacture	36.89	29.76
Distribution	8.49	4.67
Commercial Expense	9.01	7.31
New Business	4.76	2.96
General expenses	4.90	2.19
Taxes	7.22	5.56
Leakage	2.75	1.35
	<hr/>	<hr/>
Miscellaneous sales	74.05	53.80
	.01	.08
	<hr/>	<hr/>
	74.04	53.72

Q. Now turn to page 9 and that shows per thousand feet sold, 19.71, 27.28 and 25.53?

A. Yes.

Q. Now that 19.71 is based upon what as total operating?

A. The actual of 1910.

Q. The actual of 1910 as revised by you?

A. As revised by me.

Q. That you find on page 5?

A. Yes, I think you will find it on page 19 also.

Q. We will turn to that, which is 57.62 before adjustment?

A. Before adjustment. On top of page 20 you will find the basis for the second one.

Q. To compare it with the figures we just made, 74.04 and 57.62?

A. Yes.

Q. The other is 59.37, the second method?

A. Yes.

3259 Q. So that if you adopt the method that you have adopted of combining the manufacturing cost of 1910 with the average of the four years, you get as a total operating cost, 57.62 cents per thousand?

A. Yes.

Q. Will you subtract 53.72 from that and see how near you got to the bottom?

A. 3.90.

Q. You are within 3.90 cents of the lowest amount you could have given if you had taken the lowest on each item out of the entire four years—will you subtract 57.62 from 74.04 and tell us how far you came from the top?

A. 16.42.

Q. You were 16 cents under the maximum and 3.9 from the minimum?

A. Yes.

Q. And that is what you say you regard as normal?

A. I don't think I said that specially about the four year period.

Q. You put it in here and you expected us to accept it as worth something?

A. Yes, that was put in for the information of counsel and the court; personally I prefer the five year period.

Q. You don't think the four year average is fair?

A. Yes, but the other one is fairer.

Q. Would you go to a man and ask him to invest his money in this plant and tell him you had made up an operating cost that was within 3.9 of the minimum of each item for a period of five years and was sixteen cents and a fraction under the maximum, and tell him to rely on that?

A. It would show him what he could do.

Q. Would you ask a man to rely on that?

A. I don't know that I would.

3260 Q. You know you wouldn't?

A. I don't know that I wouldn't; I should advise him of the facts.

Q. He would want facts in a speculation like that?

A. He would get the facts.

Q. Take your next figures, 59.37 and tell me how much that is over the minimum?

A. 5.65 cents.

Q. How much is it under the maximum?

A. 14.67.

Q. We seem to get the worst of it again?

A. Yes.

Q. Now, then do you think that would give a fair result?

A. Yes, I think that is quite fair.

Q. Take 5.65 cents over the minimum and nearly 15 cents under the maximum?

A. I think that is about right, yes.

Q. Will you average the 74.04 and 53.72 and tell us what you get?

A. 63.88.

Q. Will you give us the average for the five years and tell us what that is?

A. 63.34.

Q. Looks as if it was pretty close to right?

A. Quite close.

Q. Looks as if it might be the fairest thing to take?

A. No, I don't think it would.

Q. Because it is not the lowest?

A. No.

Q. Now, then, take this 19.71 that I find at the top of page 9 and we get at that this way, don't we, we take 29.76 from page 3261 5 as the manufacturing cost for 1910, the lowest manufacturing cost?

A. Yes.

Q. Then we take 35.43 the additional operating cost of that year?

A. Yes.

Q. Add them?

A. Yes, get 65.19.

Q. Then we add 6 cents for depreciation?

A. Yes.

Q. That gives 71.19?

A. Yes.

Q. Then you subtract that from your 90.70 you computed as your average return taking into account the Valley Junction and you get 19.51?

A. Yes.

Q. Then making your correction for the city tax?

A. Yes, you get 19.71.

Q. Let us figure out 27.28 the same way; we start again with 29.76?

A. Yes.

Q. Then we take an average of the other operating expenses for the four years 28.77?

A. Yes.

Q. That gives us what?

A. 58.53.

Q. Then we add six cents to that for depreciation?

A. Yes.

Q. That gives us 64.53.

A. Yes.

Q. Subtract that from the 90.70 and we have what?

A. 26.17.

3262 Q. Then add .2 cents to adjust your tax, what do you get?

A. 26.37.

Q. That don't check?

A. No.

Q. What is the trouble?

A. The leakage explains it.

Q. If that was made up as you state it was it would check?

A. No, it wouldn't, if you accept those figures, but those are not exact figures to take; you have got to get back to another table.

Q. You didn't make that up the way your report says; you didn't base it on an average of four years?

A. Yes, I did.

Q. What is the average leakage for four years?

A. 2.26.

Q. What did you take as leakage?

A. Didn't take leakage at all that way; I took the actual leakage, 1.35.

Q. So you reduced your cost and increased your profit by taking instead of the average for the four years the lowest item of leakage in the five years?

A. Yes.

Q. It is a little misleading here, to say that is made up by taking the manufacturing cost of 1910, and the average distribution and other expenses for those four or five years?

A. No, it is quite clear to me.

Q. It isn't true as a matter of fact, is it?

A. I think it is.

Q. What is your average expense on account of leakage for the four years?

3263 A. 2.26.

Q. You didn't take that?

A. No.

Q. Is the statement that you did take the average for the four years true then?

A. I took the average actual expenses in dollars and cents for the four years, yes.

Q. Is this what they call juggling with figures?

A. No, it is not; it is not my business to juggle with figures.

Q. Won't you turn to page 19, the top of that page shows how you made up these various operating costs, don't it?

A. Yes.

Q. Now, then, begin with the actual of 1910?

A. Yes.

Q. You take each item just as it appears over on page 5?

A. Yes.

Q. Now, then, take number 1, that is supposed to be made up of the manufacturing cost of 1910 and the average cost of the four years ending December 31, 1909, isn't it?

A. Yes.

Q. Now, then, I will read from page 5. You have first there expenses of distribution, 5.52 on page 5?

A. Yes.

Q. Then you have next commercial expenses, 7.67 and that checks with page 19?

A. Yes.

Q. Then you have new business 3.98 and that checks?

A. Yes.

Q. General expenses 2.72 and that checks?

A. Yes.

3263½ Q. Taxes, 6.65 and that checks?

A. Yes.

Q. And you have on page 5 for this average leakage, 2.66 and that doesn't check?

A. No.

Q. You have taken 1.35 the low year?

A. Yes.

Q. Then you have miscellaneous credit, .03 and that checks?

A. Yes.

Q. Why didn't you take the leakage for 1910?

A. That is the actual existing condition in 1910.

Q. How would the existing condition in 1910 give you an average for four years?

A. I didn't take the average for four years; I took the actual for that.

Q. In other words of the two low items you took the actual?

A. You can put it that way.

Q. That is a fact; it is a matter of fact they are the lowest items?

Q. When you got to your next average you did not take the average for the five years of the other expenses besides manufacture, but you put in the 1910 leakage?

A. Yes.

Q. Still you thought yesterday I did not put in the 1910 tax because that would increase it?

A. I think you have them in.

Q. You did not take the 1910 tax, you took the average of the taxes?

A. They were the average, yes.

Q. That is under what the 1910 tax would be?

A. Yes.

Q. And we may very definitely assume that the taxes will never be less?

3264 A. I don't know.

Q. Your assumption is they will grow less?

A. They have been down in Des Moines; you pay less per thousand feet that you did in the old days.

Q. You don't misunderstand that?

A. On account of the increased business.

Q. That don't mean a decrease in taxes?

A. Not in dollars and cents per thousand.

Q. When you get down to brass tacks, your computation over here on page 9 are not based on what you say they are, or on anything that ever happened, are they?

A. Not based on anything ever happened?

Q. Not based on any actual condition or average actual condition?

A. They do not state—

Q. They are not based on any actual condition or average actual condition?

A. Yes, they are based on the average actual expenses for distribution.

Q. Take the whole thing?

A. Not as a whole, no.

Q. Wherever you distributed from the average you selected the low item?

A. It so happened, yes.

Q. It didn't happen, did it; you did not draw lots; it was not an accident, was it?

A. I don't know just exactly what you mean.

Q. You said it happened; I want to know whether it happened or whether it is the result of intelligent work?

A. It was the result of some intelligent work.

Q. I want you to tell the Master whether you believe that a conservative man would be justified in basing a conclusion as to the result of the operation of these works upon figures such as these?

A. Yes, otherwise they wouldn't have been there.

Q. You believe they are better than actual results, or the average of actual results, such as you took in Cedar Rapids?

A. I think they are best suited here, otherwise they would not have been in that report.

Q. Now, then, you remember that yesterday we found out that there was an abnormal condition as to oil here judging by the experience from the books?

A. Yes.

Q. And that was abnormally low?

A. Yes.

Q. You have taken that and put that into your computation?

A. Yes.

Q. Taken that abnormally low basis?

A. Yes.

Q. The leakage is abnormally low?

A. I don't know that it is abnormally low; or very high.

Q. What was the leakage in Cedar Rapids?

A. I haven't any idea.

Q. What is the leakage in Chicago?

A. I don't know.

Q. What is the leakage in Saginaw?

A. I don't know.

Q. What was the leakage in New York?

A. It was very small in New York; under two per cent, I think.

Q. If under two per cent is exceptionally low is not 1.35 exceptionally low?

A. Under two per cent.

3266 Q. Of what?

A. Of the gross business.

Q. They had a dollar rate?

A. Yes.

Q. That would be under two cents?

A. Yes.

Q. 1.35 would be abnormally lower?

A. It is a low leakage.

Q. You know what the leakage is anywhere except New York?

A. I do not.

Q. What is the leakage in Lincoln?

- A. I do not attempt to carry them around with me at all.
Q. Have you asked Professor Marks about it?
A. I don't remember discussing the matter with him.
Q. So you don't know whether that leakage is abnormally high except you do know that 1.35 is abnormally low?
A. I say it is not high.
Q. You said two per cent in New York was abnormally low?
A. I remember New York was considered low leakage.
Q. You took this abnormally low leakage?
A. I think your leakage is about four per cent.
Q. You took 1.35?
A. Per thousand.
Q. That was on the basis of a dollar rate?
A. Yes.
Q. All these figures made up on page 5 are based on the dollar rate?
A. Yes.
Q. That would be 1.35 cents?
A. Yes.
Q. Or, 1.35 per cent.
3267 A. Yes; your leakage is not high, I will admit.
Q. Won't you admit it is abnormally low?
A. No; I wouldn't want to admit that.
Q. You will admit two cents in New York was abnormally low?
A. That is my recollection. I may be all wrong in my recollection.
Q. Referring to the paper marked Complainant's Exhibit 48, headed Des Moines Gas Company Average Gross and Net Return applicable to interest and profit four years ended December 31, 1909, I wish you would take this first item and look at your report and tell me whether I have got correctly the average sales there and whether the amount to be derived from the sales is correctly stated as \$391,943.47?
A. That is all right.
Q. Now, then, have you checked the entire exhibit?
A. Yes, sir.
Q. So that if we took the average of the four years ending December 31, 1909, and took your operating with the changes which you made in it, and depreciation figured on your basis, the net return applicable to interest and profits would average \$96,053.61?
A. Yes, sir.
Q. And that includes Valley Junction?
A. Yes, sir.
Mr. GUERNSEY: I think we would like to have the record show that complainant offers and reads in evidence Exhibit 48 and asks the reporter to copy the same into the record.
Complainant's Exhibit 48 reads as follows:

3268

"Des Moines Gas Company.

Average Gross Revenue and Net Return Applicable to Interest and Profits for Four Years Ended December 31, 1909.

Revenue.	
City of Des Moines:	
435,492,747 c. f. at 90¢ per M.	\$391,943.47
Valley Junction:	
4,518,125 c. f. at \$1.50 per M.	6,777.18
440,010,872 c. f.	398,720.65
Operating Expenses.	
Exhibit "A" (hall)	\$276,411.96
Depreciation 6¢ per M. on 440,010,872	
c. g.	26,400.65
	302,812.61
Net earnings	95,908.04
Miscellaneous sales	145.57
Net return Applicable to interest & profits....	\$96,053.61
Excluding Valley Junction	92,385.80

3269 Q. Now referring to Complainant's Exhibit 49, I wish you would state whether that correctly shows what the average results would have been at 90 cents gas based upon the operating expenses as shown in your report for the four years ending December 21, 1909, excluding Valley Junction but taking your basis of depreciation?

Mr. BYERS: The figures below at the lower end of the first proposition on Exhibit 48, 440,010,872, what do those represent?

A. The average sales for four years.

Mr. GUERNSEY: That would be the totals for Des Moines and Valley Junction. Referring to Complainant's Exhibit 49, the figures are correct, are they not?

A. Yes.

Q. On the basis of taking out Valley Junction expenses at the same ratio as the Des Moines expenses that would show an average return applicable to interest and profits at the 90 cent rate with your basis of operation and depreciation at \$92,385.80?

A. Yes.

Complainant offers and reads in evidence Complainant's Exhibit 49, as follows:

3270

"COMPLAINANT'S EXHIBIT 49.

*Des Moines Gas Company Average Gross Revenue & Net Return
Applicable to Interest & Profits for Four Years Ended December
31, 1909.*

Excluding Valley Junction.

Revenue.

435,492,747 c. f. at 90¢ per M. \$391,943.47

Operating Expenses.

Operating Expenses \$273,573.68

Depreciation 6¢ per M on 435,492,747
c. f. 26,129.56

299,703.24

Net Earnings 92,240.23

Miscellaneous Sales 145.57

Net Return Applicable to Interest & Profits... 92,285.80

3271 Q. Referring to Complainant's Exhibit 50, I wish you would look that exhibit over with a view to stating whether that does not correctly show the net return applicable to interest and profits for the five year period ending December 31, 1910, including Valley Junction and upon the basis of your figures as to operation and depreciation. Have you examined it?

A. Yes, that is right.

Q. You find it to be correct?

A. Yes.

Q. So that for the five years including Valley Junction the net return applicable to interest and profits on the basis of your operating expenses and depreciation would average \$97,683.67 per annum?

A. Yes, sir.

Q. Now, then, turn to Exhibit 48 and we find that for the four years on the same basis it is \$96,053.61?

A. Yes.

Q. That does not show a very abnormal condition as to five years or four years, does it; they are pretty close together?

A. They are, yes.

Q. It would not warrant the inference that there was something abnormal in either one of them?

A. I don't think that is the correct way to look at it myself.

Q. You think that difference would warrant the inference there was something abnormal there?

A. I don't think you wanted to draw any conclusion of that kind from this.

Complainant offers and reads into the record Exhibit 50, as follows:

3272

"COMPLAINANT'S EXHIBIT 50.

*Des Moines Gas Company, Average Gross Revenue & Net Return
Applicable to Interest and Profits for Five Years Ended December
41, 1910.*

Revenue.

City of Des Moines	453,414,600 c. f. at 90¢ per M....	\$408,073.14
Valley Junction	4,992,300 " " \$1.50 " "	7,488.48
Total.....	458,406,900 c. f.	415,561.62

Operating Expenses.

Exhibit "A" (Hall).....	\$290,577.40	
Depreciation 6¢ per M. on 458,406,900 c. f.	27,504.41	
		318,081.81
Net Earnings		97,479.81
Miscellaneous Sales		203.86
Net Return Applicable to Interest and Profits		\$97,683.67

3273 Q. I wish you would examine Complainant's Exhibit 51, which is a corresponding computation for the same five years, but excluding Valley Junction, and tell us whether that shows correctly the net return. Have you now examined Exhibit 51?

A. Yes.

Q. Do you find that to be correct?

A. Yes, subject to the Valley Junction expenses being excluded at the same ratio as Des Moines.

Q. So that shows, excluding Valley Junction, the average net return for the five years ending December 31, 1910, on a 90 cent rate and upon operating expenses and depreciation as shown in your report, \$93,659.35?

A. Yes.

Q. And comparing that with Exhibit 49 which showed the same thing for the four year period, we find there is only a difference of twelve hundred and some odd dollars?

A. Yes.

Complainant offers and reads into the record Exhibit 51, as follows:

3274

"COMPLAINANT'S EXHIBIT 51.

Des Moines Gas Company.

Average Gross Revenue & Net Return Applicable to Interest & Profits for Five Years Ended December 31, 1910.

Excluding Valley Junction.

Revenue.

453,414,600 c. f. at 90c per M. \$408,073.14

Operating Expenses.

Operating Expenses	\$287,412.78	
Depreciation 6¢ per M. on 453,414,- 600 c. f.	27,204.87	
		<hr/> 314,617.65
Net Earnings		93,455.49
Miscellaneous Sales		203.86
		<hr/>
Net Return		\$93,659.35

3275 Q. Now it wouldn't be exactly fair for us on our side to take the average for four years or five years, as shown by these exhibits based on the average sales for that period, without also showing what the result would be taking the same operating expenses and depreciation for the sales of 1910, would it?

A. I don't just follow that.

(Question repeated.)

A. No.

Q. I wish you would examine Complainant's Exhibit 52, which states the return including Valley Junction at the 90 cent rate, based upon the operating expenses for five years, as stated by you and depreciation upon your basis, and state to us whether that is correct?

A. That is all right.

Q. You find that to be correct, do you not?

A. Yes.

Q. If you take the sales for 1910, including Valley Junction, on your basis of operating expenses and depreciation and the tax adjustment, the return would be \$114,697.27?

A. Yes.

Q. Now that shows the difference between the basis which you adopted of selecting the lower expense items and combining them, and the basis of taking the average?

A. Yes.

Q. You got \$145,173.06 on one method, and \$135,863.22 on another method?

A. Yes.

Q. This is the result which we attain if we take an average of the five years instead of picking out small items?

A. Yes.

3276 Q. Now, then, I notice here we have put in a profit per thousand of 21.56 cents?

A. Yes.

Q. While you have a profit per thousand for the year 1910, the actual results of that year of 19.71?

A. Yes.

Q. On this 90 cent basis?

A. Yes.

Q. That difference between 21.56 and 19.71 would represent the deductions which you made from the actual amounts paid out by the company during this five year period?

A. I don't follow that.

(Question withdrawn.)

Q. Is this 19.71 based on the year 1910 alone, on page 9 of your report?

A. Yes.

Q. The fact that we have a profit of 21.56 for the average would indicate nothing as to that?

A. No.

Complainant offers and reads in evidence Exhibit 52, as follows:

3277 "COMPLAINANT'S EXHIBIT 52.

Des Moines Gas Company.

*Profits on Basis of 90¢ Gas and Average Expenses for 5 Years.
(Including Valley Junction.)*

Average Total Cost per M. for five years to December 31, 1910 (page 5—Hall)	63.34¢
Depreciation	6.00
	<hr/>
Less Tax Adjustment	69.34
	.20
	<hr/>
Receipts per M. (including Valley Junction) page 20	69.14
	90.70
	<hr/>
Profit per M.	21.56
	<hr/>
Sales for 1910, including Valley Junction (Exhibit "C")	531,991,054 c. f.
531,991,054 c. f. at 21.56¢ =	\$114,697.27

3278 Q. I wish you would also examine Exhibit 53.

A. The works is not included in this.

Q. Will you make the correction, if necessary?

A. It would give a result of \$109,536.27.

Q. That difference is due to the fact that Exhibit 53 does not include the cubic feet 531,486,354?

A. Yes, sir.

Q. Will you please take the original Exhibit 53 and add below 521,486,354 the amount of the gas used at the works?

A. 3,615,600.

Q. Will you carry out opposite that the additional amount on account of that?

A. It is equivalent to 754.20.

Q. Will you draw a line under that and add it so as to give us 109,536.27 of Exhibit 53?

A. Yes.

Complainant offers in evidence Complainant's Exhibit 53, with the additions made to it by the witness, as follows:

3279 "COMPLAINANT'S EXHIBIT 53.

Des Moines Gas Company.

*Profits on Basis of 90c. Gas and Average Expenses for 5 Years
(Excluding Valley Junction).*

Average Total Cost per M. for 5 years to December 31, 1910 (page 5—Hall).....	63.34c.
Depreciation	6.00
	<hr/>
	69.34
Deduct Taxes Adjustment .....	.20
	<hr/>
	69.14
Receipts per M (Excluding Valley Junction)...	90.00
	<hr/>
Profit per M	20.86
Sales for 1910, excluding Valley Junction (Exhibit "C")	521,486,354 c. f.
521,486,354 c. f. at 20.86c. =.....	\$108,782.03
Should be	109,536.27

Gas used at the works 3,615,600 = 754.34

3280 Q. Now this makes a difference on account of Valley Junction of five thousand one hundred and some odd dollars; can't you give it to me exactly, comparing this exhibit with 52?

A. \$5,161.

Q. You made your difference on account of Valley Junction .7 cent per thousand?

A. Yes.

Q. You indicate by your report and that is the inference to be drawn from your statement of 90.7 net per thousand?

A. Yes.

Q. How did you get at that .7 cent per thousand, that amounts to less than five thousand one hundred and some odd dollars?

A. Yes, that is profit on the Valley Junction and the difference in this used at the works.

Q. How did you get at your .7 cent?

A. The result of calculation, taking the Des Moines sales at 90 cents and the Valley Junction actual amount of gas used at the works at a dollar rate and divided the whole thing by 531,991.30 being the total sales.

Q. Did you in making that computation figure the gas used at a dollar?

A. I let it remain at your figure, being a dollar on both sides.

Q. Is that right?

A. The net result is the same.

Q. It would be the same as if you would put that in at 90 cents?

A. Yes, because I would put it in as expense 90 cents.

Q. I am talking about your income?

A. Put that at 90 cents, would be 90.66; there would be a difference there.

Q. The difference would be how much—you beat us a little there?

A. No.

3281 Q. Would the difference be twice as much as that adjustment on account of city tax .2 cent?

A. I don't know. I didn't beat you any; I took it in as an expense at a dollar and consequently there is no injustice to you.

Q. Your 90.7 is not on your theory, would be the actual income per thousand of gas sold, if the gas was all sold at 90 cents in Des Moines?

A. It is not.

Q. The actual income from that would be less?

A. Yes.

Q. I want to call your attention to Exhibit 54 and take up the items there that start with 63.34 found on page 5 of your report?

A. Yes.

Q. As the average operating costs for the five years as you adjusted them?

A. Yes.

Q. And the tax- per thousand for the year 1910 were 6.22?

A. 7.22.

Q. Yes, but for the average five years they were 6.78?

A. Yes.

Q. So that if we were to adjust your figures to cover the tax on the 1910 basis we should have to add .44 cent to your 63.34?

A. Yes.

Q. And then the depreciation you took out, six cents?

A. Yes.

Q. Now I have learned, and that you will have to assume for the present, as I will have to prove it later, to cover accident insurance,

covering as much as \$7,500 for one person and \$3,500 for one accident, but not covering additional matters, we would have to pay a rate amounting to two cents or 1.99 per thousand. We
3282 have one accident that is referred to in your reports where the claims for the single accident amount to \$125 or \$130 thousand; so it would seem to me that would be a reasonable amount of insurance; at least reasonably low?

A. Two cents?

Q. The amount I am talking about, the amount covering the \$7,500 maximum single injury, and \$3,500 maximum for a single accident.

A. Yes, assuming this accident as a sample, it would be reasonable.

Q. You know ordinarily single accident claims run over \$7,500?

A. They do not always get that.

Q. Now your Exhibit E shows the amount actually paid out; you gave us credit for on account of expenses as .38 cent?

A. Yes.

Q. So that if there was added enough to bring up and carry that accident insurance, if the cost I have given is correct, you would have to add 1.62 cents on that account?

A. Yes.

Q. We would have an additional expense as to bad debts, on account of there being no penalty in this new ordinance?

A. I won't concede that; I think you could take deposits and obviate the question of bad debt.

Q. Who suggested that to you?

A. That is not an uncommon thing.

Q. Who suggested that to you?

A. That was not suggested to me. It has been talked over since I was on the stand yesterday.

Q. With whom?

A. Professor Bemis.

Q. He gave you that as an answer?

A. No, I opened the question of deposits.

3283 Q. You asked him whether that wouldn't be an answer?

A. Yes, we discussed the question and we thought it was a good scheme—done as a matter of practice.

Q. Is there anything in the ordinance authorizing and requiring deposits?

A. No.

Q. Would you say that a half a cent a thousand was an unreasonable amount on account of extra expenses on account of collections and on account of the loss that necessarily occurs when bills are deferred?

A. I think you could obviate the charge.

Q. Obviate it entirely?

A. Almost entirely at least.

Q. On what experience do you base that?

A. It seems not unreasonable to me.

Q. I didn't ask you that.

A. It is my opinion, sir.

Q. Have you any experience as a basis for that opinion?

A. No.

Q. You know as a matter of fact, don't you, from your general knowledge, not referring to the gas business, where bills are not paid promptly, it costs more to collect them and the losses are greater?

A. In general business, yes.

Q. Now, then, this company has got to pay the expense of rate regulation, hasn't it?

A. Yes.

Q. There must be somewhere in the expense before you get to your net return applicable to interest and profits, provision for that?

A. I don't regard it that way. The question must be considered before you can get a return on your investment. In other words, I would favor giving you a larger return to cover such risks as rate regulation.

Q. We have got, for instance, in the mere matter of making up the inventory an expense that amounts to one per cent on the gross sales, or more, and that is only the cost of the inventory, or a part of the cost of the inventory in this case. Now, then, this company must pay that?

A. Certainly.

Q. And it is a part of the expense of doing the business, isn't it?

A. No, I don't regard it so.

Q. What would you call it?

A. It is an extra expense.

Q. It is an expense?

A. Yes.

Q. Does the expense grow out of the transactions of the Company's business?

A. Indirectly, not directly.

Q. Is there anything more closely related to the Company's business than the rate it obtains?

A. No.

Q. This expense is directly related to that rate?

A. It is.

Q. It is then directly related to the business?

A. No, not as you state it. Its charge must be taken care of in fixing a return for you.

Q. What do you mean by return, isn't the return the profit after you pay your expenses?

A. Yes. To take care of this, additional allowance should be made. For example, six per cent is considered a reasonable return on your investment. I would not recommend keeping it down to six. I would recommend an extra per cent. I am not expressing any opinion.

Q. You know no man ever invested a dollar so far as you know, if you ever made examinations for people investing in properties like this, you know they never went in on that sort of a basis, don't you?

Objected to on part of defendants as incompetent, improper cross examination and mere argument.

A. I don't know anything about it.

Q. Somewhere we have got to take care of this expense?

A. Yes.

Q. I wish you would take the sales since our last rate controversy from 1896 down to 1910 and tell us roughly what they run?

A. Since 1895 your sales appear to be four billion ninety-seven thousand.

Q. Does that include Valley Junction?

A. Everything.

Q. It don't include 1911?

A. No.

Q. What was it in 1895?

A. Sixty-one million.

Q. Well, if we add say thirty-six or thirty-seven hundred million that would be approximately right?

A. Yes, about that.

Q. One cent on that would be thirty-six thousand dollars?

A. Yes.

Q. Now that would be, on that basis, an inadequate provision, as these cases are tried now?

Objected to on part of defendants as not being cross examination.

3286 A. I have no idea what your expenses are.

Q. But you know that anything like that ought to be spread over a term of years?

Same objection as last above made.

A. Yes.

Q. How many years, five or ten?

A. I think about ten years would be reasonable.

Q. Now, if you gave a cent and a half a thousand on the present basis, that would be about \$7,500?

A. About that.

Q. It would leave for the ten years \$75,000, if our sales increased, to take care of the entire expense of this litigation, including not only what is to take place before this time, but the subsequent hearings before the Master and this and other courts?

A. Yes.

Q. Do you say that would be too low an amount?

A. I don't know what your expenses are.

Q. You know the expenses of such a thing as this they run fairly high, decidedly high?

A. Sometimes they do.

Q. You wouldn't say a cent and a half a thousand would be too much on that account?

Same objection as last above made.

A. It has got to be provided for some time.

Q. You wouldn't say a cent and a half a thousand was an unreasonable provision?

A. I wouldn't care to express an opinion about a cent and a half.

Q. I didn't ask you to express an opinion. You wouldn't say a cent and a half a thousand would be too high, would you?

Same objection as last above made.

3287 A. Well, I will say it is too high.

Q. Who told you about that?

A. No one.

Q. And you say you have no experience upon which to predicate your judgment?

A. I would say, it comes in very largely as to whether or not you are entering on a gamble in the fight, if you are taking a forlorn hope.

Assuming you take up a fair fight, you are certainly entitled to an allowance.

Q. Do you think now that you ought to sit here and determine the cost of this litigation?

A. I am not attempting it.

Q. It would be a fair allowance on account of it on the assumption that the suit was brought in good faith?

A. I am not making any assumption at all.

Q. Assuming that the suit was brought in good faith, will you undertake to say that you believe a cent and a half is too high?

Objected to on part of defendants as not cross examination and immaterial.

A. No, I would not attempt to say it was too high.

Q. Now if the adjustments I have referred to shown on Exhibit 54 were made, that would bring the total cost per thousand up to 73.4 cents?

A. Yes, sir.

Q. Now so far as these adjustments are concerned there is not a single one of them that will not be a matter of expense to — company, is there?

A. Ultimately that all will be expenses.

3288 Q. There is no doubt about that?

A. To a small extent.

Q. The only thing we could quarrel about would be the amount?

A. Yes.

Q. I wish you would look this over and see whether the computations based upon these adjustments are correct and what amount there would be net at the 90 cent rate, making these adjustments including Valley Junction?

A. You wish Valley Junction as you have it here?

Q. Yes, just as shown by this exhibit?

A. The result is \$92,034.45.

Q. That is what the 1910 sales would give, net, taking your basis of cost and your basis of depreciation, and making the adjustments shown by this Exhibit?

A. Yes.

Q. And that includes Valley Junction?

A. Yes.

Complainant offers and reads in evidence Exhibit 54.

Objected to on part of defendants as incompetent, immaterial and based upon assumptions not in the record, and is no part of the cross examination of this witness.

Complainant's Exhibit 54 reads as follows:

3289

COMPLAINANT'S EXHIBIT 54.

Des Moines Gas Company.

Profits on Basis of 90c. Gas and Adjusted Operating Expenses (Including Valley Junction.)

Average total cost per M. for 5 years to December 31, 1910 (page 5-Hall)	63.34¢
Taxes 1910 (page 5)	7.22
" Aver. 5 years (page 5)	6.78
Add to adjust taxes to 1910 basis .....	.44
Depreciation	6.00
Accident insurance	2.00
Less amount actually paid (Exhibit "E") ..	.38
Add to cover unsettled claim	1.62
Expense collection (no penalty) .....	.50
Rate regulation	1.50
Total cost per M. as adjusted	73.40
Receipts per M., including Valley Junction (page 20)	90.70
Profit per M.	17.30
Sales for 1910 including Valley Junction (Exhibit "C")	531,991,054 c. f.
531,991,054 c. f. at 17.30¢	\$92,034.45

At this time, 12:- M. an adjournment was taken until 1:30 P. M.

3290

1:30 P. M., THURSDAY, September 14, 1911.

JAMES HALL continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. Now Mr. Hall I want to call your attention to page 3104 of the record, on your direct examination you were asked this question and made this answer: "As I understand that proposition up to that point, the books of the company show and these figures are taken from the books by you and your men, that the net revenues at the present rate of gas for interest and other charges for 1910 was \$192,107.65. A. Yes, sir." Then on the next page this question

was put to you "And it works out a net revenue available for interest and other charges of \$104,884.98 or the equivalent to a return of 19.71 per thousand feet of gas sold. A. Yes, sir." Now it is not proper to compare that \$192,107.65 with the \$104,884.98 is it?

A. They are prepared on an entirely different basis.

Q. One has depreciation taken out and the other has not?

A. Exactly.

Q. This first item, \$192,107.65 is *not* the net revenue at the present rate of gas for interest and other charges for 1910?

A. As shown by your record, but before excluding any depreciation.

Q. And that must be borne in mind otherwise this is misleading?

A. Oh yes, that has got to be borne in mind.

Q. Now there is this question and answer on page 3105 "I notice you state here that adopting results which you have adjusted and including depreciation gas at a sale price of 90 cents in Des Moines you have a net revenue available for interest and other charges of \$145,173.06. Does that come in a later computation?"

3291 A. Yes, it does. I might say I prepared computation on a basis of average operating expenses for four years preceding in order to determine the true working conditions of the company." Now that average operating expense for the four years preceding was not taken to get that \$145,173.06?

A. The operating excluding manufacture.

Q. And taking low leakage that you found in 1910?

A. Yes.

Q. So that if we read this as it stands here, it would be misleading?

A. It might be somewhat misleading.

Q. In other words we cannot accept the statement as exactly accurate without these modifications. Now you say again on page 3105 "Q. Now if you will, take up the fourth proposition and work that out for the Master explaining it to him as it appears on page 9. A. The table on page 9 is a statement showing the net return as previously determined on a basis of 90 cent gas assuming an actual expense for 1910. The second table is prepared on a basis of 90 cent gas assuming the manufacturing expenses for 1910 together with the average distribution expenses for four preceding years while the third table is on the basis of actual manufacturing expenses, plus the average distribution charges of five years to December 31, 1910." Now then there again that in order to be accurate should be subject to these modifications.

A. To the leakage modification, yes.

Q. You say as to the last matter referred to as on a basis of actual manufacturing expense. That should be modified to read actual manufacturing expense for 1910.

A. For 1910.

3292 Q. I want to call your attention, Mr. Hall, to page 247 of the printed abstract in the supreme court of Iowa in the Cedar Rapids Gas Light Company against the city of Cedar Rapids, apparently the September Term 1908 which refers to and sets out a part of your report there as to the matter of leakage and I wish you

would refer to that and state what you reported the percent of leakage was in Cedar Rapids?

A. For the year 1902 8.58 per cent of the manufacture. For the year 1903 9.01 per cent of the manufacture. For the year 1904 11.22 per cent. For the year 1905 13.30 per cent. for the year 1906 12.81 per cent.

Q. The average is what?

A. 1.39 per cent.

Q. How much did that amount to per thousand?

A. 1902 3.30 cents; 1903, 3.08 cents; 1904, 5.36 cents; 1905 5.91 cents; 1906, 6.15 cents. Average 5.13 cents.

Q. You also stated there didn't you in that same connection that these percentages averaging 11 per cent and a fraction were excessive?

A. Yes, sir.

Q. Do you remember now whether you did consider this matter of leakage in Cedar Rapids?

A. Must have if I made that statement.

Q. Now did you adjust that to what you thought a reasonable basis there?

A. I don't recall doing so.

Q. Just accepted the actual results there?

A. As far as I recall. As I have already said I don't recall much about Cedar Rapids.

Q. Passing that for the present, I wish you would look over this Exhibit 55 and state whether or not on the assumption there
3293 made which are the same as those in Exhibit 54 except that Valley Junction is excluded the result attained is correct basing it on the average operating for five years and the gas sales of 1910.

A. On this basis the computation is correct.

Q. And that would give as the net return——

A. \$87,166.92.

Mr. GUERNSEY: Complainant offers and reads in evidence Exhibit No. 55 as follows:

Objected to as incompetent, based upon assumptions that are not in the record, as no part of the cross examination of this witness and as immaterial.

COMPLAINANT'S EXHIBIT NO. 55.

Des Moines Gas Company.

*Profits on Basis of 90¢ Gas and Adjusted Operating Expenses
(Excluding Valley Junction).*

Average total cost per M. for 5 years to December 31, 1910 (Page 5—Hall) ..		63.34¢
Taxes 1910 (Page 5).....	7.22	
“ Average five years (Page 5).....	6.78	
	<hr/>	
Add to adjust taxes to 1910 basis.....		.44
Depreciation		6.00
Accident insurance.....	2.00	
Less amount actually paid (Exhibit “E”) .....	.38	
	<hr/>	
Add to cover unsettled claims.....		1.62
Expense collection (No penalty).....		.50
Rate regulation.....		1.50
	<hr/>	
Total cost per M as adjusted.....		73.40
Receipts per M. excluding Valley Junction		90.00
	<hr/>	
Profit per M.....		16.60
Sales for 1910, excluding Valley Junction (Exhibit “C”).....	525,101,954 C. F.	
525,101,954 c. f. at 16.60¢.....		\$87,166.92

3294 Q. Somewhere in your report you give a comparison of the depreciation each year. Can you tell me what page it is?

A. 17, at the bottom of page 17, the right hand column.

Q. There is a longer list than that here somewhere, it is on the next page 18.

A. It continues over.

Q. Now look at that, as a general proposition the per cent charged for depreciation on your theory grows smaller as we go further back?

A. Yes.

Q. And if instead of taking an arbitrary figure January 1, 1905 you had run as far as the books would show you and taken the cost and depreciated it, your value would have been larger than it is now would it not?

A. No, if I understand your question correctly.

Q. If you don't understand it I will be glad to make it clear or try to. Your per cent of depreciation runs smaller as you go back.

A. Yes.

Q. Because sales are very much smaller I suppose, that is the reason isn't it?

A. Yes, and relatively the plant investment is somewhat higher.

Q. If you had kept on going back from 1895 to 1886 the same condition would have prevailed wouldn't it?

A. Yes.

Q. And the amount that you charged off would have been relatively smaller as you went further back.

A. Yes.

Q. But instead of that you took an arbitrary figure for 1895?

A. Yes.

3295 Q. That would decrease your ultimate valuation wouldn't it?

A. The acceptance of this \$429,000 in 1895 would tend to decrease the valuation, but on the other hand taking depreciation further back would help to equalize that increase at that time.

Q. At a smaller rate though?

A. Get smaller as the years went back.

Q. On page 9 near the bottom of the page you say that the investment amounts to \$1,550,766.58?

A. Yes.

Q. Now of course that is not strictly correct.

A. That is the investment subject to the deduction for the depreciation.

Q. That is the amount upon which you have computed your various returns?

A. Yes.

Q. Do you think it is fair to charge off depreciation and to add no appreciation, if there is any?

A. It depends how you consider your appreciation. As I have explained in this report I think you are entitled to certain concessions in the way of appreciation, I don't know what they are that is a matter for you. I accept the figures as I find them on the books.

Q. You are figuring here a return on something?

A. Yes.

Q. Now that return is not on investment is it?

A. No, it may be more or may be less.

Q. You say here it is less don't you. You say you have computed the investment and have deducted about \$250,000 from it.

A. Yes, that is investment shown by your books less that depreciation.

3296 Q. The amount on which you figure return is not the investment is it?

A. No.

Q. It also is not the value is it?

A. No.

Q. Now then what conclusions do you deduce from a computation that is based neither on the investment nor on the value?

A. That is your investment as shown by your books less that proportion which we estimate has expired.

Q. I asked you what conclusion you deduce from this computation of returns based neither on the investment nor on the value.

A. The conclusion stated here.

Q. What is that conclusion?

A. That there are certain percentages of return on that investment as stated.

Q. That is not return on the value is it?

A. No.

Q. It could not be accepted as indicating what return these same figures would give on the value?

A. Does not purport to do so.

Q. Now you have again left out an item that would have decreased the percentage of return haven't you?

A. I don't know.

Q. You don't know whether appreciation would decrease or increase the percentage?

A. Appreciation would decrease the percentage.

Q. Yes, I thought it would. Now at whose suggestion did you omit that?

A. The matter was never discussed.

Q. Take this table at the top of page 9 it shows a return or valuation upon which some figures would give a return of five per cent and so on?

A. Yes.

Q. Now there is nothing in your report by which the Master could get at what the actual value of the plant was so as to utilize that table at the top of page 9?

A. I do not purport to show the Master the value of the plant.

Q. You referred to this Chicago ordinance and to the action under it with reference to some items. That ordinance provided for the rehabilitation of the property and the expenditure of some money?

A. Yes.

Q. How much did that ordinance provide should be added for contractor's profit?

A. Ten per cent.

Q. How much did it provide should be added for overhead charges?

A. Five per cent on 110 per cent. At least it has been interpreted as five per cent on 110 per cent. There was a doubt in the ordinance.

Q. How much did it say should be added on account of discount on securities?

A. Nothing.

Q. Are you right about that?

A. Absolutely.

Q. Were the bonds to be sold at par?

A. The five per cent was to provide for any discount on securities.

Q. That was to provide for discount on securities.

A. Yes.

Q. How much did it provide for engineering and contingencies like that?

3298 A. The ten per cent and five were the only provisions in the ordinance.

Q. Now you applied that ordinance to us on these donations, did you give us the benefit of fifteen per cent?

A. I added nothing to your books.

Q. Before I forget it, there is one item I want to ask you to get some information about and I will ask you now. You itemized this cost more or less somewhere, here it is on page 21? You have real estate \$35,765.26 at that time. Now I wish you would get me the specific pieces of real estate that that covers.

A. All right.

Q. In getting at this \$1,550,766.58 how much gave you put in on account of discount on securities or expense of selling bonds.

A. Nothing.

Q. The books showed that expense didn't they?

A. Yes.

Q. And that is a legitimate expense isn't it?

A. Quite.

Q. Why did you ignore it?

A. That is an expense to be considered by the stockholder and not in my opinion one to be considered in litigation with the consumer, that is a question of finance.

Q. Then when you made up this account here you did not take the actual cost?

A. If you consider that an item of cost no I did not.

Q. Well it is isn't it?

A. Not in this connection.

Q. Well but a thing costs so much don't it?

A. Yes, sir.

Q. And the point of view from which you look at it don't change these figures?

A. It doesn't change the figures, but changes the way of measuring it.

Q. As a matter of fact the company did spend some money on this account didn't it?

A. Yes.

Q. How much did it spend on this account?

A. \$40,000 altogether including reorganization expenses or \$33,750 I think for bond discount.

Q. Those were actual expenses incurred?

A. Yes.

Q. They were legitimate expenses so far as you know?

A. Yes.

Q. And were part of the investment?

A. Of the stockholder, yes.

Q. Now then on what theory is that money to be treated differently from other money?

A. That is a matter for the finance of the stockholder himself not a matter to be treated in connection with the consumer.

Q. That don't answer my question, I want to know why that item of expense is not as legitimate a part of the actual cost of this plant as any other item of expense?

A. I have just answered.

Q. You have said you did not consider it but you have not said why.

A. I will explain a little further, if you had sold six per cent bonds you would have sold them at par, but there would have been a heavier charge against your profits in respect to that issue of bonds. Instead of that you put them out at five and should absorb the discount over the rate on the bonds. That is another matter for the stockholder himself being a finance matter.

3300 Q. The stock holder in your very wide experience has evinced something like this disposition, what he wanted to know was how much money it was going to cost him?

A. Yes, sir.

Q. Now he didn't care what that money went for, he wanted to know thought how much he had to put up?

A. Yes, sir.

Q. Then he wanted to know how much the company could return on it.

A. Yes.

Q. Now you check out \$40,000 you say and don't allow him any return on that?

A. No, I do not. I would not interpret it that way.

Q. Why does your report contain this so called book value of the plant less depreciation, what you call the actual value of the plant?

A. Simply as a guide to the court as to money invested in this plant.

Q. And for what purpose would the court want to know anything about that for?

A. To determine what is a reasonable rate in this suit.

Q. You omit an item of \$40,000 or \$50,000 that has actually gone in?

A. And so state.

Q. Because on your theory it don't earn a return?

A. Not quite so.

Q. Now were there any other items omitted in the same way?

A. No, that item and \$120,000 paid to the United Gas Improvement Company in respect of the debt due by the Capital City were the *the* only two items omitted from your account that I recall.

Q. You did omit practically all that \$200,000 paid for patents and—

3301 A. I excluded \$172,000 of that, yes.

Q. Now that is not on the investment theory is it?

A. No.

Q. They made that investment?

A. They presumably made that investment, yes.

Q. You exclude it because the value was not there?

A. No, I exclude it because I commenced business with the affidavit by Col. Pratt. I accepted his affidavit as being what was left here in this plant.

Q. If you went back of that affidavit you would have included this investment?

A. On Mr. Hagenah's report I would have to include another \$40,000.

Q. If you went back of this item and adhered to your investment basis you would have included that wouldn't you?

A. Yes, in all probability I would.

Q. And that would increase your book value?

A. Yes.

Q. Have you any idea what the value of this plant is?

A. None.

Q. Not the remotest?

A. Not the very slightest.

Q. Now you charge up on page 12 some repairs and say at the bottom of page 11 in producing this it might be mentioned that during the year 1910 extensive repairs were made at the works stated in dollars and cents the repairs during the period under review were as follows, and then you explain them. Now there is nothing improper in those repairs is there?

A. No, I am not making the suggestion.

Q. It was bound to be necessary to make those repairs some time?

A. You have got to repair your plant some time.

3302 Q. The company had to pay for them some time?

A. Certainly.

Q. And the fair way for you in order to get at general results would be to average them over a number of years?

A. Your repairs you have to average the same as others.

Q. And five years is the standard is it?

A. Not always.

Q. Well it was the standard time in the Cedar Rapids case wasn't it?

A. Yes, sir.

Q. And it was as you stated there, it had been adopted as standard?

A. It is very often considered as the standard, but it may not always be adopted.

Q. I don't mean always adopted, there is nothing that is always done that I know of. To get any fair average on repairs it is just as necessary to take in a big year as it is a small year isn't it?

A. Certainly to get a fair average.

Q. Now you had also some repairs mains and repairs services referred to on page 13 that were high, is that right?

A. Yes.

Q. The reason for that was obvious wasn't it?

A. Quite.

Q. That is the city had been changing grades of streets?

A. Yes.

Q. And the company to conform to these grades had to change its mains and incur expense that it would not occur every year but would incur occasionally?

A. Naturally.

Q. And a change in the mains involved a change in the services?

3303 A. Exactly.

Q. That is something that you have to pay some time?

A. Yes.

Q. And to get a fair average these items ought to be spread over a number of years?

A. Yes.

Q. Now you say the increased advertising expense of 1910 appears to be due to the inclusion of larger charges by the United Gas Improvement Company at Philadelphia in respect to advertising services rendered. I wish you would be a little more specific about that and tell us just what it is.

A. I can't give you any more detail now, I can get it for you.

Q. Do you know anything about it?

A. I know larger advertising was paid to the United Gas Improvement Company, that is all I know about it.

Q. Who told you that?

A. My assistants.

Q. You don't know on what account they were paid?

A. I was not particularly interested. In connection with advertising in some shape or manner.

Q. You call attention to this here and it is the only item there with reference to advertising to which you call attention.

A. Yes.

Q. You had some reason for it why you emphasize it in that way.

A. Because it was considerably larger, that is why I call attention to it.

Q. How large was it?

A. .59 in 1910.

Q. Was that the increase?

A. No, that was the actual figure.

3304 Q. What was the increase you call attention to here?

A. The increase was over the average .21.

Q. That would be about how much?

A. About \$1,100.

Q. What was that paid for?

A. I don't know.

Q. Do you know anything about this except what somebody told you?

A. No, I don't except it is increased to this extent.

Q. How do you know that, did you look the books up?

A. No.

Q. That was just what somebody told you?

A. Yes.

Q. As far as you know the company made money by spending that \$1,100?

A. I don't know anything about it.

Q. And it was an entirely legitimate expense as far as you know?

A. I am not objecting to it.

Q. Not in the slightest degree?

A. Never raised any objections to it.

Q. You say increased soliciting expense is explained by largely

increased salaries in 1909 and 1910? What is just the force of that word largely in there, what was the increase?

A. I don't recall.

Q. Did you ever know?

A. Yes, I looked over the schedule of the salaries and general increase in the way of salaries.

Q. Did you pick out the solicitors salaries and find out what that increase was?

A. And increase force is my recollection.

Q. All I know is by what you say, I don't know what you think or recollect, you say the increased soliciting expense is explained by largely increased salaries in 1909 and 1910. Now
3305 did you use that word largely without some reason?

A. No, I don't presume I did.

Q. Have you any information on the subject?

A. Yes, we have some information on the subject.

Q. I don't like that we, I am asking about you.

A. Well I have.

Q. Based on your own investigation?

A. The summary prepared of these accounts.

Q. Where is it?

A. In the working papers; I can get it for you tomorrow.

Q. Have you any idea what that increase was?

A. I don't recollect now.

Q. You would not suggest then it was improper?

A. I have not suggested it.

Q. Why did you call attention to it?

A. To explain the increase in the expense.

Q. That is all you know about it as a matter of fact?

A. Yes.

Q. Now then I want to take up this expense extra for a minute. These expenses are usual are they not with corporations such as this one?

A. Yes.

Q. They are usual with business men generally?

A. To a greater or lesser extent, yes.

Q. Well people usually try to keep them down as low as they can don't they like any other expense item?

A. They certainly do.

Q. But they are incurred simply because people believe generally that it is worth while from a business point of view to do it?

A. Not always. You give them very often because you are
3306 importuned to give them.

Q. And because you think it would be bad policy to refuse?

A. Not always, no.

Q. Do you mean to say that these expenses are illegitimate?

A. I didn't say so.

Q. Do you mean to be so understood?

A. No.

Q. They are expenses ordinary with corporations on this character and business corporations generally?

A. They are with business corporations generally, but not so much with corporations of this character.

Q. You know the classification of the Inter State Commerce Commission prepared for railroads covers items of this kind?

A. Yes, sir.

Q. They recognize them?

A. Yes, sir.

Q. You know every commission classification for public utilities recognizes the propriety of items of this kind?

A. Yes.

Q. Do you know of any classification that does not?

A. Yes.

Q. What?

A. Not classification exactly but the comptroller of the city of Chicago.

Q. I asked for classification?

A. No classification, no.

Q. So generally every classification you know of whether public or private recognizes them as part of the legitimate expense doing this?

3307 A. Yes.

Q. You will not say that is not sound will you?

A. Well I think there might be reasonable doubt about it.

Q. That would be putting your opinion against the recognized principles everywhere so far as you know except in Chicago wouldn't it?

A. It is not the general practice to exclude them, but I think there is a very good reason for excluding them.

Q. You take this association and these transactions that are directed towards building up the city of Des Moines, the business — of Des Moines contribute to it simply because they think it is to their interest to built up the city. Don't you think the interest of the gas company is identical with theirs?

A. It is identical with the city of Des Moines.

Q. It is identical with the interests of the business men who think they can help in building up the city.

A. Yes, the business men pay subscriptions themselves and also you to pay yours, that is the fair way to look at it.

Q. Then if they are assisting us to pay ours I can say I am assisting them to pay theirs.

A. Yes.

Q. So it is six of one and half a dozen of the other isn't it?

A. Well I don't know but it is.

Q. You know it is not exactly legitimate is it for me for instance to say if a man pays me a fee he is assisting me in buying cigars?

A. It certainly assists you to buy the cigars.

Q. If I didn't earn any fees I perhaps could not buy cigars, but the man that pays me pays me not with reference to what I am going to do with the money?

3308 A. Pays you for your brains.

Q. Or with reference to the service I render to him?

A. Certainly.

Q. If by contributing to these things the gas company can help build up the city and so help build up the business of the gas company and in that way produce this condition that is going to decrease expenses and enable them to some time reduce the price of gas, why isn't the public just as much interested as anybody else?

A. I am not arguing with you about it, I have no particular objections on the subject one way or the other.

Q. You don't know whether this ought to be included or not?

A. I do know, I simply state the fact of what happens in Chicago. I think the best proof of the matter is I left them there.

Q. You have referred to one public utility in Chicago, there are others aren't there?

A. That applies to all public utilities connected with the city of Chicago.

Q. Name them.

A. Refers to all traction companies and the telephone company.

Q. Now the other companies?

A. That remains to be seen yet.

Q. Now then *you* call your attention to these salaries general. Do you mean to say that these items are not proper?

A. I never made the suggestion.

Q. Then you do not criticise them, do not say they are improper?

A. It seems to me it is a matter of proof if you get the services rendered.

Q. That is all there is isn't it?

A. All there is to it.

3309 Q. If we have a purchasing agent and by reason of that purchasing agent and by reason of his connection with the U. G. I. company are able to buy lower than other concerns, then the Des Moines Gas Co. gets a benefit?

A. If you can show where you get any benefit from the salaries paid it would be a legitimate expense of your business.

Q. Do you throw out all salaries unless it is affirmatively shown there is benefit commensurate with the salary?

A. I think quite reasonable to do so.

Q. What investigation did you make. The fact is it is the reverse as to salaries and you accept salaries unless there is something to indicate they are not earned?

A. Yes.

Q. In this same connection, what is oil selling for now?

A. 2.8 cents according to your contract.

Q. I don't mean that, what is it selling for in the market?

A. I don't know.

Q. What did it sell for last year in the market?

A. I don't know.

Q. What is any company aside from this company paying for it?

A. I don't know.

Q. What has any company aside from this company ever paid for it?

A. I have no idea.

Q. Well didn't you yesterday rather intimate that our price of oil was high?

A. I intimated that I had—my general impression was that there was a much larger cut in the price of oil than there was, than according to your records there was, that is all.

Q. Where did you get that information?

A. That is what I have been trying to think out myself. I got that impression some very considerable time ago.

3310 Q. Didn't Prof. Marks tell you?

A. He did not.

Q. Prof. Bemis?

A. No he did not. The matter has not been discussed with Prof. Bemis or Prof. Marks.

Q. You don't know as a matter of fact that this price for oil is low?

A. I don't know, no, except as I say I received the general impression some very considerable time ago that oil had been cut in two.

Q. How long ago?

A. Quite some months ago, about a year ago.

Q. Do you think it is of any value to this company to have available what funds it needs from time to time for extensions and things like that?

A. To a certain extent yes.

Q. What do you mean by your limitation to a certain extent?

A. I would regard it rather poor business to carry an exceptional cash balance when you have the bonds you can sell, when you have bonds in the treasury available for sale any time when required.

Q. You apparently do not understand the question, what I want to know is whether it is worth something to a public utility in Iowa to have somebody that will take its securities and advance it money when it needs it.

A. Oh yes, that is useful at all times.

Q. Can't always sell your securities at a good price can you?

A. Some trouble some times.

3311 Q. If we are going to adopt your theory and won't allow anything for discount on bonds that is a pretty serious thing?

A. I did not suggest that theory to you.

Q. You throw it out of your valuation?

A. I don't think you understand. That theory was not advanced.

Q. Now then do you think it is worth anything to this company to have its books audited and its accounts audited periodically by competent people?

A. It should be yes.

Q. You charge for doing that work don't you?

A. We certainly do.

Q. And you think it is worth the money?

A. We regard it as being worth the money.

Q. Do you think it is worth anything to this company to have the engineering experiences and the engineering force of the U. G. I. Company at its disposal?

A. It should be yes.

Q. It would cost a good deal if they tried to buy it from somebody else?

A. Cost some money I expect.

Q. You say on page 18 as explained on page 8 of this report the distribution and other expenses of the year 1910 cannot be regarded as indicative of normal operating conditions. To obtain a reasonable estimate of the net revenue operating under normal conditions and including sales at 90 cents per thousand cubic feet and an allowance for depreciation we have decided to accept the average expense of operating for two years as follows, A, four years ended December 31, 1909, B, five years ended December 31, 1910. That is followed by your statement on page 19 which is the one that I referred to before, it is not made up on the basis stated is it?

3312 A. Yes I regard that as being made up on the basis stated.

Q. You state the basis here as the average for these two periods *an* and do not say anything at all about taking the 1910 manufacturing at the bottom of page 18.

A. Well I am quite content to modify it as to manufacture.

Q. So if a person reading this accepted it it would be misleading?

A. No, I think if he read the report as a whole it would not be misleading.

Q. If he took the report as a whole and checked out the figures and found out where were the differences but without doing that if he read the statement as you have it here it would be misleading wouldn't it?

A. I hardly think so.

Q. You think by intuition he would make these corrections?

A. I think he would if he read the report as a whole he would follow it all right.

Q. Now you carry that on, you say on page 19 the following is a summary of these results and comparison of actual results giving 1910 actual and then the average of four years and the average of five years except you have 1910 manufacturing and 1910 leakage?

A. Yes.

Q. And you go on down at the bottom of the page and carry that same thing through, say under operating expenses manufacturing year 1910 actual so and so, distribution other expenses the sales so many thousand feet, without anywhere calling attention to the fact that you did not make this up in the way in which the report states it is made up, isn't that true?

3313 A. I hardly agree with your conclusion.

Q. Well point out the place where you do call attention in your report to the fact that these statements are not made up as stated?

A. The report and statements taken together I think are perfectly clear.

Q. Find me the statement here. Of course we figured it out by making these computations, spent three or four hours on it. Show me a statement giving it without taking the figures?

A. There is no statement such as you mention.

Q. Do you remember now whether there were surrounding towns at Cedar Rapids that were involved in the case there?

A. There was one town.

Q. And do you remember whether the gas sales there were eliminated by you?

A. I do not. I don't recall.

Q. Now let me call your attention to this from the testimony in the Cedar Rapids case, the transcript filed in the supreme court page 1368. "Q. Now you heard Mr. Dutton's testimony yesterday with regard to Exhibit K-2 containing a schedule with reference to gas sold for 1907 for the months April to August inclusive. You have included the sales at Marion in your statement, don't you? A. Yes." Do you remember that, do you remember whether you included Marion sales?

A. I will accept that as being a record of the proceedings.

Q. Did you proceed as follows: Q. Now have you prepared a schedule showing what difference it would make in the final result which you have reached as shown on page 29 of Exhibit K-2. A. Yes."

A. What is Exhibit K-2?

Q. That is your report I think. Now do you remember that you did there when your attention was called to it 3314 after you had gone through and testified make a computation eliminating the outside town?

A. I do not. I am quite prepared to accept the record on the subject.

Q. Do you remember there whether the price of gas in the outside towns was the same as in Cedar Rapids?

A. I have no recollection.

Q. As a matter of fact Valley Junction ought to be eliminated because it would not be fair to increase rates in Des Moines and hold Valley Junction down or decrease them here and hold them up would it?

A. Not attempting to do so.

Q. I didn't ask whether you attempted to do so or not, I assume you did not make the rates, I asked whether it would be the right thing to do?

A. It would not. But if you will permit me to point out if you take out sales and expenses of Valley Junction and take out a corresponding amount out of the capital the amount will be just about where you started.

Q. We have not put any capital into our estimate.

A. In my estimate \$45,000.

Q. How can you say it affects it where you say you have nothing to do with the value of the property?

A. It shows what you paid for the property.

Q. No, it don't even show that.

A. Shows actually expended going into the property charged to that account by the original affidavit.

Q. It shows this when we get down to brass tacks it shows what you say is Mr. Pratt's appraisalment, it shows then what you
3315 say is cash paid in less some 40 odd thousand dollars on account of discount on securities and less about \$250,000 depreciation that is what it shows instead of actual cost isn't it?

A. Yes.

Q. Now I would like to turn *go* your computation for the working capital for a minute. What page is that on?

A. 25.

Q. What do you mean by working capital?

A. The amount of available free working assets necessary to operate business.

Q. In other words this company sells gas on credit?

A. Yes.

Q. It has to buy the material and to pay the cost of manufacture?

A. Yes.

Q. It necessarily has to carry some cash, does it discount its bills?

A. I can't say whether it does or not. I think they pay thirty days.

Q. You don't know whether they discount bills or not?

A. I could not say.

Q. That would be something for which working capital would be necessary?

A. Yes.

Q. These things all mean that the concern after it has its plant or property must have some money on top of that to do business on?

A. Yes.

Q. It buys and carries supplies on hand?

A. Yes.

Q. It is important it should have supplies on hand isn't it?

A. Yes.

3316 Q. Especially where it is shipped in from a distance like oil and coke?

A. Yes.

Q. So that there shall be no interruption of the business of the company on account of the failure of these things?

A. Should not be.

Q. Now you took then as their material and supplies on hand what you found at that time to be \$77,410.46. Now will you turn over to your Exhibit "F" and tell us what they carried on hand on March 1, 1906?

A. \$128,790.72.

Q. And on 1907?

A. \$127,499.30.

Q. And 1908?

A. \$122,789.49.

Q. And 1909?

A. \$97,319.28.

Q. The items you are reading are found under the head assets subhead material and supplies.

A. Yes.

Q. And as of what date did you take this?

A. December 31, 1910.

Q. What did they have at that time?

A. \$73,929.26.

Q. Don't check does it?

A. Yes, gas arc lamps underneath \$3,481.20.

Q. That is what makes it check?

A. Yes, gas arc lamps.

Q. So you took the lowest figure at that time that there was in the five years?

3317 A. It took the balance sheet of December 31, 1910, that was the date I was working at. It so happened it was the lowest.

Q. That happens in every instance don't it where there has been any selection of figures?

A. It has happened once or twice.

Q. Please give us an instance where it has not happened where there has been any discretion exercised in making a selection of figures in your report?

A. I don't know that I can.

Q. Isn't it a fact that wherever in your report where you had some discretion you have selected the low item?

A. The question of discretion did not come into it at all.

Q. No question of discretion involved in your report?

A. Was not a question of discretion involved in this.

Q. Then you took the accounts receivable, that is something that your working capital goes into?

A. Yes.

Q. What makes up these accounts receivable?

A. The accounts current gas accounts, gas sold those in arrears, city of Des Moines, Welsbach street lighting Co. and residual appliances and sundry accounts.

Q. So they are all current accounts growing out of the business.

A. Yes.

Q. You put also in here your cash on hand?

A. Yes.

Q. And then your insurance paid in advance?

A. Yes.

Q. So that as a matter of fact at this time the company has invested in current and working assets \$179,608.35?

A. Less the deduction?

3318 Q. Well but didn't it have this investment at this time?

A. Yes.

Q. Without any deduction?

A. I had the investment, current working assets, yes.

Q. Now then you cut that down by deducting two things, one is bills and accounts payable?

A. Yes.

Q. If those bills and accounts payable are for additions made to the plant during the year not funded into bonds they ought not to be deducted ought they?

A. That would depend to some extent. I would not be prepared to give you a straight answer on that. Under certain conditions, yes.

Q. On what conditions, just what conditions?

A. If you had built the plant entirely and notes payable, long time notes I would say you are quite right. In a case of this kind accepting the balance sheet as your basis I would say no, on this balance sheet.

Q. The result would be this, you have got the so called book value of the plant and you give us some working capital here and on the assumption I have made you would deduct \$51,000 that had gone into the plant that you do not show anywhere in your book value?

A. No, I would not. I would give you the book value of your plant exactly as shown by your books subject to that original affidavit.

Q. And subject to depreciation and subject to cutting out bond discount?

A. Yes.

3319 Q. Now if that \$51,837.00 had gone into the plant we are entitled to it somewhere aren't we?

A. You have got it.

Q. I say we are entitled to it.

A. Yes, you are entitled to it and you have it.

Q. Now then would it appear in your \$1,450,000?

A. \$1,550,000, yes.

Q. Now you deduct your accrued taxes and interest?

A. Yes.

Q. You stated that there is doubt about that and you resolve the doubt against again didn't you?

A. No.

Q. You say this, we believe the suggestion has been made taxes and interest should not be deducted in determining the amount of working capital but because of their non payment the amount of cash on hand is correspondingly increased?

A. That is so.

Q. So there is doubt about that?

A. No doubt in my mind.

Q. It is a mooted question?

A. Might be a question about it, yes, open to argument.

Q. You resolved that against us?

A. Resolved it against you because in the adjustment it should be.

Q. Resolved it against us?

A. Yes.

Q. We seem to have hard luck don't we?

A. You certainly have.

Q. Don't seem to win any of these mooted things. Now suppose this company had started out in business and take up that accrued taxes and interest a minute. It had not been operating and
3320 taxes and interest had accrued where would it get the money to pay them?

A. Issue of bonds presumably or issue of stock.

Q. Or borrow it?

A. Or borrow.

Q. It would need that much working capital wouldn't it?

A. Yes.

Q. Would you deduct it from the working capital under those circumstances?

A. Conditions are not parallel.

Q. I didn't ask you that I asked you whether you would deduct it under *whose* conditions.

A. Under those circumstances I would determine the whole thing on a different basis.

Q. Under those circumstances would you deduct it?

A. Not on the conditions you state no.

Q. You would not deduct it because we would need that much working capital to pay these bills.

A. Yes.

Q. Now then we need just that much to pay bills as of the date of your statement here don't they?

A. Yes, from your funds you get from the collection of your accounts receivable.

Q. We get all our funds from that.

A. Yes, I know but for those particular bills you collect before the 10th or the 15th of the month to get these accounts.

Q. All of our working capital must come from somewhere?

A. It must.

Q. You determine then whether it is working capital or not by the source from which we get the money?

3321 A. Not altogether.

Q. If we had borrowed this money and had it on hand and were using it for this purpose you would call it working capital wouldn't you?

A. Yes.

Q. But because we happened to not borrow it but have applied it here and taken it out of the earnings instead of distributing them in dividends you say it is not working capital, is that it?

A. That seems about it, yes.

Q. So the smart thing for us to do would be for us to distribute that for dividends and then borrow the money?

A. The- it would show you had that much more invested in the plant, you would have yes.

Q. But would we have any more money or any more property than we have got now?

A. You might not no.

Q. Did you have a conference with Mr. Marks about this working capital?

A. The thing was casually mentioned one night.

Q. You both happened to get it just the same didn't you or within a very few hundred dollars.

A. It so happened I believe.

Q. That was pure accident?

A. It was. I might explain to you the subject was not discussed until we had both prepared figures.

Q. You were keeping close enough in touch with Prof. Marks to know when he prepared his figures?

A. I know when he came in here on the stand the matter was *talled* one night after he started to give evidence.

3322 Q. This company with a working capital of \$68,000 on your theory has got current assets here of \$179,000?

A. Yes.

Q. And you give them credit on account of these assets for only \$68,952.

A. Yes.

Q. But if it had borrowed money instead of saving it out of its earnings you would give them credit for the whole amount?

A. It would have altered the position certainly.

COURT: Let me understand that. You mean to say that you give them credit on the value of the plant or investment when they borrowed money to pay interest?

A. If they issued some more bonds it would increase their cash balance.

COURT: Don't you put interest in the same category you do dividends.

A. I do.

COURT: Not part of the expenses?

A. Not part of the expenses of the business.

Q. Now as a matter of fact these accrued taxes and interest that you put down here is a mere book entry isn't it?

A. It is.

Q. It is not something that has been paid out?

A. It has not.

Q. But you are holding the working capital in order to pay it.

A. Yes.

Q. That is what we are going to use the working capital for.

A. Yes.

Q. So you say you have not got that working capital?

A. You have if you would take a *balance* sheet the same date and you have the cash and the liabilities against it, it would be
3323 substantially the same as this.

Q. But we haven't got cash here?

A. Got substantially cash to pay it.

Q. Got \$49,434.15, we are going to use that to apply on bills and accounts payable?

A. Yes.

Q. We haven't any cash to apply on accrued taxes and interest?

A. You will be collecting some accounts receivable to pay that.

Q. Then you are deducting it from something we are going to collect in the future.

A. Collect ten days after the first of the month most of it.

Q. What I want to get at is this theory on which you take out of the working capital we actually have, the amount of some accrued expenses we are afterwards going to pay out of it. If we were going to pay off some actual cost of manufacture you would deduct that? In other words you do not give us the actual working capital but take working capital and then deduct from that what you can find that you think we are going to apply it on?

A. On the result I consider I consider working capital.

Q. You only give us credit for the balance?

A. Yes. If it happened that we paid these bills and accounts payable, if they were capital accounts paid them out of bonds then that won't be deducted because we are not going to pay them out of working capital.

A. There are conditions where that would apply, yes.

Q. If we are going to pay accrued taxes and interest out of something, going to be collected hereafter, then that ought not to be deducted?

A. No, I don't agree with you there.

Q. As a matter of fact the amount of working capital we
3324 actually have there is \$179,608.33.

A. I don't agree with that conclusion either.

Q. We have that much invested actually in supplies, accounts cash in the bank and insurance paid in advance.

A. Yes. I think your theory is subject to grave abuse however.

Q. I don't know anything about that, I am just trying to get at—

A. I am just offering the suggestion, that is all.

Mr. BYERS: It might be entertaining to have him enlarge on that subject?

Mr. GUERNSEY: All right go ahead.

A. You can imagine a condition where a company would buy very expensive material and supplies far beyond any requirement, and then you would claim a return that you would not be entitled to. You may have materials and supplies to go ahead for a year or a couple of years and then include it as capital.

Q. That would not be a very wise course?

A. I am simply offering the suggestion the theory is liable to be abused.

Q. When you check up material on hand here it shows less on hand than any time the last five years.

A. That shows good and careful management.

Q. That is like some of these other things, it don't apply to this case?

A. I am simply offering it to you is all.

Q. Then to get back we have actually invested \$179,608.35 of working capital?

A. On your theory, yes.

Q. I don't care what the *ch*tory it, that is the amount of investment?

A. Subject to these deductions, yes.

3325 Q. The deductions don't affect the aggregate amount of this investment, the aggregate of the things in which working capital was invested was \$179,608.35.

A. Yes, I will accept that.

Q. The way you get at your proposition is by deducting from the actual invested working capital some of these obligations which you think it will be used to pay?

A. Yes.

Q. Where as a matter of fact there is not enough money to pay half of them so it is obvious it cannot be used to pay even one half of these obligations.

A. I think it is also obvious if you collect your accounts receivable within ten days *fater* the end of the month you will have enough.

Q. That will be another quarter section, it won't be this cash in the bank, be some more cash?

A. Be some more cash.

Q. And we may have some more accounts to pay?

A. Probably.

Q. Now you say this you have considered there the amount required to operate the business, that is right isn't it?

A. Yes.

Q. That means the amount required to carry the accounts, carry the supplies and carry the things that are paid for in advance and to carry the proper cash balance.

A. Yes.

Q. Now what is this balance sheet here on page 27?

A. That is a summary of the balance sheets of December 31, 1910 and March 1, 1909, reversing the entry we talked about this morning, the \$254,000.

3326 Q. March 1, 1906.

A. March 1, 1906, yes.

Q. This is only material on this immaterial question of the amount of so called water in the stock isn't it?

A. That is all.

Q. Now turn to page 28, you have there an account showing some profits?

A. Yes.

Q. Are those as shown by the books?

A. Yes.

Q. Any adjustments?

A. The adjustments as shown at the end of the table.

Q. That is you have taken out the expenses the \$5,935.18 which the company has already paid on account of this suit.

Q. Yes.

Q. Or had paid at that time?

A. Yes, and put into expense that federal tax.

Q. Did you charge any depreciation?

A. No. That is as shown by your own balance sheet.

Q. So that you'd have to be corrected by depreciation?

A. It states that it is accumulated increment shown by your balance sheet.

Q. To be of any value to us, we would have to take depreciation out?

A. Oh yes, if it was to give actual facts.

Q. Could not draw any conclusions on it to use in this case?

A. Not until you took depreciation out.

Q. Why did you take out that \$5,935.18?

A. Because that is not an ordinary expense. I increase your profits by the amount of \$5,835.18.

3327 Q. These were profits we did not have, we had to pay out the money?

A. I know you had to pay out the money. I say that is not an ordinary operating expense of the business.

Q. Suppose one of our holders should be struck by lightning would you say that damage was ordinary operating expense?

A. I think you would call that loss of capital.

Q. What would you do if we had repaired it, would you charge that to capital account?

A. No.

Q. Charge it to operating?

A. Be an extensive repair spread over a number of years.

Q. And charge it to operating?

A. Oh yes.

Q. There are just two general heads for the account, one is capital account and the other is operating.

A. No, I think you are stretching it rather fine. There is a mid-way head for such expenses as these are.

Q. There is what?

A. Sort of one between for expenses such as these replacement expenses.

Q. What do you call it?

A. Has no name, an operating expense by the company is no place for large extraordinary expense.

Q. Got to go there ultimately?

A. Got to be taken care of ultimately.

Q. In the operating?

A. Not necessarily.

Q. You take care of it as a capital expense?

A. No.

Q. Where would it go if it didn't go to operating?

3328 A. It would be held in suspension.

Q. Can't hold it there all the time.

A. No, I should say you should be allowed a certain allowance to take care of this.

Q. You are an expert accountant chartered accountant and public accountant. Now I want to know whether these expenses whether they are ordinary or extraordinary expenses that come out of the transaction of the business don't they ultimately go into operating?

A. Suppose I concede your point that they ultimately go into

operating but can it be regarded as operating in a manner of this kind?

Q. But that is not an answer to my question. They ultimately go into operating, they can't be capital.

A. They are not capital.

Q. That means if not capital they must go into operating?

A. They must go into operating but not in a case of this kind.

Q. In a case of this kind would you call them capital?

A. No.

Q. Where would you put them?

Q. Put them in suspension.

Q. Leave them there indefinitely?

A. Up to you to take care of them in subsequent years.

Q. When we did take care of them would they go into capital or operating?

A. In operating, but not in a report in operating in a matter of this kind.

Q. Then you would have some expenses that in a matter of this kind we would have to pay out of our own pockets?

A. No, I don't think I suggested that? I suggested that the margin of return should be so much higher to enable you to take
3329 care of such expenses.

Q. Don't you know as an accountant who has taken some law at Edinboro and political economy and so on we cannot pay dividends except out of net profits?

A. I know that.

Q. Going to deduct this before you get net profits or is this part of the net profits out of which we have got to pay dividends?

A. Well you get your net profits then make the deduction for expense and pay dividends out of the balance.

Q. In other words our net profits include expense?

A. They do, but not those expenses of ordinary operations, the operating of this business don't include an extraordinary charge like that.

Q. They would have to be paid out of the receipts from the operation of the business.

A. You have got to pay them some time.

Q. You would have to pay them out of the receipts from the operation of the business?

A. Yes, or get more capital in.

Q. You have said they are not a proper capital charge?

A. You can't capitalize them not properly.

Q. They are an expense that grows out of the transaction of the business and must be paid out of the receipts of the business?

A. Yes.

Q. And still you say they are to be paid out of net profits. Suppose we don't make any net profits?

A. Then you just carry them along until you do.

Q. The company might just earn enough to pay these without making anything more.

3330 A. You would not pay a dividend I think in ordinary course, perhaps you have not made any profit of operating this business before you take into consideration such extraordinary expenses as these.

Q. What is the definition of net profits?

A. Profits received from the operation of a business in ordinary course.

Q. Take a railroad like the Chicago, Rock Island & Pacific Railway that has continuous expenses for rate cases, what are they charged to?

A. They are charged as expenses.

Q. Do they go into operating?

A. I don't know, I have not seen their balance sheet.

Q. Is it your theory they ought to be paid out of the profits?

A. Got to be paid from profits.

Q. They are not part of the operating expense?

A. No.

Q. Then there are certain expenses in connection with the transaction of the business that to your notion are not operating expenses?

A. Yes, there are.

Q. And the net profits is the difference between what you call operating expenses and the gross receipts without the payment of these special expenses?

A. Yes, the net profits of operating a business in general course is before charging these expenses.

Q. Would you be willing to just strike out "in general course"?

A. No, I would not be willing to strike out in general course. You can charge these expenses before getting your net profits in a case of this kind.

3331 Q. That is a matter of law.

A. It may be a matter of law, but as a matter of accounting you can determine your net profits in a case of this kind after charging these expenses as an expense.

COURT: You would then allow the cost of insurance against lightning and fire or anything of that kind as a part of the ordinary expenses?

A. This is a matter of insurance.

COURT: And that would be to liquidate a loss by fire or lightning if it occurred?

A. Yes.

Q. Give us some other special expenses that could not be included in operating expense?

A. There might be quite a number of special advertising expenses that would be entitled to charge only as a proportion in any year and charge the balance forward to the next year and so on.

Q. I am not questioning that, it is not a question where we are going to spread it, but where it is to go.

A. It has got to be ultimately taken care of from your profits, I don't dispute that at all, but I do say you can't include it as a general expense in a matter of this kind.

Q. Why is there any difference between bookkeeping here and bookkeeping if a man was buying bonds?

A. Will you explain that a little more fully, I don't understand it.

Q. You say it can't be taken into account in a case like this, now suppose that a man was talking about making an investment in the bonds of this company and wanted to know what expenses of carrying on the business were and the company had spent \$100,000 in a rate case and you were to report on it, would you ignore that \$100,000 if it had been paid and show net operation in 3332 addition to that?

A. No, in a case of that kind I would except them in operations make a reduction for the purpose of rate expense and show the balance available for interest.

Q. In other words you say here this extraordinary expense we have got to spread it over a term of years in order to know what would be the fair earning for this plant under normal conditions, charge it with a fair proportion of these expenses.

A. Yes, that is my idea I have tried to explain all day.

Q. Now in this case if you had spread this \$5,935.18 over the five years you would have charged in for rate litigation a little over one fifth of a cent per annum?

A. Yes, but it would not be correct at all, it should be charged over the next period. It has nothing to do with this period under review.

Q. Nothing to do with the period where the expense is incurred. You would not begin with that period?

A. If I began at all I would begin the next period.

Q. Do you think that the time over which this should be spread would be affected at all by a local situation which prohibits cities fixing rates for any specific term or prohibits them making contracts for any specific term?

A. I would not care to express an opinion on that.

Q. Turning to your table on page 29 what you attempt to show there is the per cent of return?

A. Yes.

Q. That is not based on the value of the property?

A. No.

Q. And is not based on the actual investment?

A. No.

3333 Q. And does not take into account appreciation?

A. No.

Q. So it does not show what the investor has been actually earning on either the value of the property or upon his investment.

A. It does not. That is the investment as shown by your books.

Q. Now where did you get this net revenue?

A. From your books.

Q. Have you checked it at all, do you know where you did get it?

A. No. I am told it came from the books and the records.

Q. But do you know what if any adjustments were made in it?

A. No.

Q. This you say includes depreciation?

A. Yes.

Q. And on the basis of six cents a thousand?

A. Yes.

Q. You have not checked these figures yourself?

A. No.

Q. Don't know anything about them more than appears on the face of the papers?

A. Made up under my instructions, yes.

COURT: Before you leave page 29, what do you count the investment?

A. The investment accepts the affidavit of Col. Pratt as the commencement and adds all subsequent additions as shown by the books taking out a deduction in respect to depreciation.

COURT: Why do you take the depreciation out of investment?

A. The plant is wearing down each year, so much of the plant has got to be absorbed.

COURT: Why not just leave the investment stand and not count anything for depreciation?

3334 A. I don't think that would be fair.

COURT: Wouldn't that be practically the same thing?

A. No, sir.

COURT: That is as far as the investor was concerned?

A. No. The investment today is not worth as much as they pay for it on the theory that the plant is wearing down each year.

COURT: Of course that is getting at the value of the property, I am speaking of investment.

A. If I did not consider depreciation at all there is a deduction from the investment or operating expenses you might take that away which — give considerable larger returns.

COURT: Investment is the amount of money put into the plant from start to finish.

A. Yes, less that proportion worn out.

COURT: The value of the plant entering in?

A. Entering in altogether.

Q. You say at the bottom of this page that 11.12 per cent would be the return on this investment subject to certain modifications.

A. Yes.

Q. If depreciation had been omitted?

A. Yes.

Q. Deduct that 9.56 from that and let us see what your average depreciation has been?

A. That 11.12 applies to the year 1910?

Q. Only to the one year?

A. Yes.

Q. You state on page 30 at the top of the page and I think you added the same statements in your testimony several times the U. G. I. company obtained control of this property and operated it. What

do you mean by saying the U. G. I. Company operated this
3335 property?

A. They owned the stock and it was operated under their general supervision or ownership.

Q. Now as a matter of fact the U. G. I. owned the stock.

A. My understanding of it, yes.

Q. And the company was operated by its officers, I mean by the officers of the Des Moines Gas Co., under the instructions of its board of directors?

A. Yes.

Q. And the U. G. I. company exercised the control that owners of stock ordinarily exercised over a corporation?

A. Yes.

Q. Nothing abnormal or unusual in that?

A. It is not meant in any offensive way at all.

Q. How did you get that \$640,709.16?

A. That represents the balance of surplus income taken from the company.

Q. How is it made up. Did you make it up.

A. No.

Q. Is any depreciation in there?

A. No. Exactly as shown by your books.

Q. Is the \$264,000 it-, charged out of it or in it?

A. It is in.

Q. Then that means this that the \$640,709.16 is the amount which your assistant computed as the income without deducting depreciation from 1886 to the end of 1910.

A. No. To February 28, 1906.

Q. Now you have a dividend here of four and one fourth per cent April 1888. Is that the only cash dividend that the company has ever paid?

A. Yes.

3336 A. \$12,750.

Q. And the balance of these earnings \$168,255.56 prior to June first, or December 31st, 1896, went into a stock dividend?

A. Yes.

Q. Now that was money then that had been invested in the plant?

A. Yes.

Q. Did you cut that out as water?

A. The \$168,000 no I did not.

Q. So that all of these profits except \$12,750 were put into the business?

A. Put into the business.

Q. At the top of page 31 you have an entry income from July 1886 to December 31, 1910 which amounts to as you have it \$1,074,393.88 that is right is it?

A. Yes, sir.

Q. And as you have made up your statement here the company has used about \$250,000 of that or you have charged them with that on account of depreciation, the balance of it is in the plant.

A. Yes, subject to that small dividend.

Q. \$12,750?

A. Yes.

Q. Now as a matter of fact all of that depreciation fund you have deducted has gone back into the plant hasn't it?

A. Yes.

Q. You didn't give us credit for any of it did you?

A. I don't follow your question at all.

Q. You took off \$250,000 in round numbers, as I recall 245 thousand and something isn't it?

A. Yes.

Q. Of the value of the plant on account of depreciation?

3337 A. Yes.

Q. We put that all back.

A. That makes no difference.

Q. So we neither have value nor depreciation fund on your theory?

A. No, your plant depreciated to that estimated extent.

Q. I know, but did you give us credit for \$1,074,393.88?

A. Yes, sir.

Q. As new money put in?

A. Yes, it is in your investment account.

Q. Now you said in connection with Exhibit 33 that Mr. Hagenah in his estimate of the investment value had made a fundamental error?

A. Yes, sir.

Q. What is the theory upon which Mr. Hagenah's estimate of the investment value is made up?

A. The theory is as I understand it that the deficit of earnings under eight per cent shall be capitalized and that any excess over eight per cent shall be credited to the investment account.

Q. Do you credit it where that credit results in cutting down the actual investment of the plant?

A. As it was done in this statement.

Q. Which statement.

A. Mr. Hagenah's statement.

Q. He didn't make any such credits did he?

A. He didn't treat it that way, that was the net result of what he does.

Q. He didn't treat it that way did he.

A. He didn't treat it that way, but that is the net result of what he did.

Q. We will come back to that later, I think you are mistaken. Now then is this right as you understand that theory

3338 Mr. Hagenah takes the original investment, then he takes the additional investments, then he takes a return computed at some rate and adds the return to the operating and the depreciation?

A. Yes.

Q. Then deducts the gross receipts?

A. Yes.

Q. Now the effect of that is this is it not and this is the whole story of it that if the return in the earlier years is inadequate to take care of these things, so as to give the investor a fair return that

difference, that loss is capitalized and he is given a return on it until he has been reimbursed.

A. That is the idea.

Q. Now in order to make him whole you must give him say to take as an illustration a plant that costs a hundred thousand dollars, now he would be entitled to each year to \$8,000 on an 8 per cent *pasis* and he would be entitled to his operating which we will call \$15,000 and to his depreciation which we will call \$1,750, wouldn't he?

— Yes.

Q. Now that is what Mr. Hagenah did.

A. Yes.

Q. Now what you have done is to give him his depreciation and then take it away from him with interest haven't you?

A. Exactly.

Q. So you have penalized him \$437,441.00 because you gave him the depreciation?

A. No, I have not.

Q. Let's see if you haven't. You take this Exhibit 33 in 3339 the summary here you have analyzed this this way haven't you, you have first taken the total cost of the plant?

A. Yes.

Q. \$2,064,118?

A. Yes.

Q. That includes the original cost and additions?

A. Yes.

Q. Now you have added your interest or return on the plant and on the additions which amount to \$2,453,719?

A. Yes.

Q. That makes a total of \$4,517,837?

A. Yes.

Q. That is what the investor has in it, that is he has got his money and interest?

A. That represents his money and interest on his money.

Q. For the whole period?

A. For the whole period.

Q. Now what he has taken out is his gross earnings less certain things?

A. Yes.

Q. Now you have gross earnings, \$5,159,853? Now will you please deduct from that the operating expenses not taking out the depreciation at all, assuming that he is not entitled to depreciation.

A. \$1,774,268?

Q. That would leave him that much, not assuming he was entitled to any depreciation?

A. Yes.

Q. Now deduct that from what he has put in, \$4,517,837.00 and what do you get?

3340 A. \$2,743,569 which figure includes the interest on the depreciation which went in.

Q. You have volunteered something which is not in answer to my question. Now I wish you would turn to the summary on page

2 of this report. Now just point out to the Master if you will, how much interest went in on that depreciation?

A. On the depreciation there is included in the interest some about \$430,000.

Q. Will you turn to your summary. Now then will you just point out in that summary how much interest you put into the \$4,517,837 on account of interest on depreciation?

A. Mr. Hagenah has in the—I accept his figure which includes that depreciation.

Q. You have put down investment in the plant?

A. Yes.

Q. You have put down next 8 per cent on opening balances?

A. Yes.

Q. That is investment in the plant?

A. After charging the depreciation.

Q. Turn back and see what the column opening balances is? What is the column opening balances there?

A. The column opening balances as I have represents the investment.

Q. Tell me which column?

A. The first column.

Q. The column begins \$308,983? This first figure in that column represents actual investment?

A. Yes, the second figure includes the element of interest on that depreciation.

Q. In your summary here you don't put any interest on that depreciation do you?

3341 Q. I didn't ask you that. In your summary you assume that the earnings were large enough to pay the depreciation and operating?

A. Yes.

Q. And if that is so, there could not be any interest on it because it would have to be paid?

A. No, the interest is in that figure, the interest on that depreciation is calculated.

Q. Now then go on a little further. You make a deduction there \$2,743,569?

A. Yes.

Q. The interest you make your depreciation fund earn at 8 per cent amounts to \$437,441.00 don't it?

A. Yes.

Q. Now deduct that from the \$2,743,569?

A. \$2,306,128.

Q. In other words that is your result?

A. Yes.

Q. That makes the man just \$437,441 worse off than if you had allowed the same depreciation over here.

A. That is the correct working out of that table on your theory, it makes him \$437,000 worse.

Q. I am coming to that later, but please answer the question.

Your man is just \$437,441 worse off than he would be if — had allowed him depreciation by your *very* summary here isn't he?

A. I don't agree with that no.

Q. Now do you say that this amount \$4,517,837 or the amount preceding it, \$2,453,719 includes interest at 8 per cent on this depreciation from the outset?

A. Yes.

Q. Then will you please turn back to your computation 3342 here and tell the Master whether to put the depreciation in in column 6 and take it out again in the first two of the last three columns affects the result at all?

A. Take it out of there and take the corresponding interest out with it, take all that out and results the very same.

Q. You say on one side of this amount that is in this \$3,136,231 you have your depreciation, \$392,362 and your interest on that \$437,441, don't you?

A. Yes. I say the depreciation is again in plus the interest.

Q. It is already in?

A. Yes.

Q. You have taken out just that same amount?

A. Yes.

Q. Now would your computation have been just the same if you had left depreciation out altogether?

A. If I had left out depreciation altogether it would have been the same.

Q. So that all you have done then by the changes you have made is to take out the depreciation factor from the Hagenah computation?

A. Yes.

Q. Then you have not allowed the man the depreciation, have you?

A. No, I have not.

Q. You have given it to him and then taken it away, that is the difference between your computation and Hagenah's isn't it?

A. Oh no. Hagenah's computation charges the plant with an allowance for depreciation, but that same charge should be credited to the plant or put up in a reserve.

COURT: The difference between you is this, the depreciation is given to the owner of the plant by Mr. Hagenah and he is entitled to interest on it?

3343 A. Yes.

COURT: But by your calculation the public is entitled to the interest on it instead of the owner of the plant?

A. Not exactly. Mr. Hagenah, before getting out his net profits charges out an allowance for depreciation. That same allowance must be put into the replacement of the plant or set up in a depreciation reserve otherwise you are penalizing the consumer to the advantage of the company.

COURT: You don't allow him any depreciation.

A. I allow him the depreciation in addition to that, but he has

got to put that depreciation fund out on the same basis at which he is charging the consumer the 8 per cent.

Q. You give him a depreciation and make him account for it plus 8 per cent interest compounded?

A. Yes, if you are going to take 8 per cent out after charging depreciation, if you are going to say my operating revenue is so much after taking out expenses with an allowance for depreciation you have got to take that same depreciation out of your plant or put it up in reserve.

Q. That is a question that I don't care to discuss with you now, we will get to that later. I want to stick to this until we get this straightened out first. You have assumed in your calculation that all of this depreciation is earning interest all the time.

A. Yes.

Q. Now is there any year where the gross revenue was not sufficient to pay both the operating expenses and the depreciation?

A. I don't recall.

Q. Well let's look and see.

A. It won't pay the return I concede you that for a number of years.

3344 Q. It will pay if your figures are right as to return it will pay operating and depreciation won't it because you figure out a net return every years?

A. Yes, on that theory.

Q. Well wasn't that right.

Q. On these facts.

Q. You did figure out a net return every years?

A. Yes.

Q. Now then let's take the first year for instance, what was the gross revenue?

A. The gross revenue \$78,793.

Q. What was the operating?

A. \$51,553.

Q. And what was the depreciation?

A. \$5,997.

Q. Total.

A. \$57,750.

Q. Now what is the difference between that and the gross earnings?

A. \$21,043.

Q. Now then how much was the return in that year, \$24,719 wasn't it on the original capital?

A. Yes.

Q. And \$736, and how much were the additions to the plant?

A. \$18,394.

Q. What is the total of these things?

A. Total of that things.

Q. Last three items.

A. \$43,849.

Q. Only had \$21,043 to pay them with?

A. Yes.

3345 Q. Your assumption then that all of this depreciation is bearing 8 per cent and is in that column \$3,136,231 leaves the investor without his return and without any interest on it.

A. I am not arguing about the earning capacity of that depreciation. I say here it is accumulated on a basis of 8 per cent.

Q. Please answer my question. Your assumption that your depreciation is all earning interest at the rate of 8 per cent per annum results in leaving the investor without a return and without any interest on it don't it?

A. No, I don't agree with that.

Q. Where does he get return or interest on it?

A. You are charging the consumer here—

Q. No please answer my question. Where does the investor get his return or interest on the deferred part of it.

A. That question cannot be answered without an explanation.

Q. Go ahead. See if you can explain it.

A. In this column you have charged up depreciation. I admit the first year he did not earn 8 per cent on your investment. You are charging up that depreciation and also charging that plus 8 per cent. In other words the company is taking credit for this \$5,997 of depreciation plus 8 per cent on them. On the other hand the consumer has something to say about it and he should have that fund put up as a credit to take care of wear and tear on that plant at the same rate of interest.

Q. I asked you where the investor was getting his return or interest on the return if it was deferred if your theory that all of this depreciation drew 8 per cent was sound, can you tell us where?

A. He is not getting 8 per cent in this year.

Q. Well then is your theory that all of this depreciation draws 8 per cent compounded and that goes into this column \$3,136,231 correct?

3346 A. Yes.

Q. It is?

A. It is.

Q. Now let's see for a minute and see whether that works out. Take the first year. We had there the value of the plant at the close of the year was \$331,789 as estimated by this table?

A. Yes.

Q. At the first of the year it was how much?

A. \$308,983.

Q. That shows that during that year there had been a failure to pay this return and operating and depreciation amounting to that difference don't it?

A. Yes.

Q. How much is that difference?

A. \$22,806.

Q. That is what is added and bears 8 per cent isn't it?

A. Yes.

Q. The investor will not be made whole unless you do add that and give him 8 per cent on it until he earns enough so as to recoup these early losses will he?

A. That is so.

Q. That is right?

A. Yes.

Q. Now if you call take that from the depreciation and then take it out of this will the investor be made whole?

A. No, it alters the investor's position considerably.

Q. The investor will not be made whole will he?

A. If you adopt your theory. My theory is a fair one to the investor and correct one.

3347 Q. Will the investor be made whole, will he receive the interest on this \$22,806 that he has lost the first year until it is repaid to him on your theory if you take off depreciation at 8 per cent?

A. Only receive return on the increase over the amount of that depreciation \$16,809.00.

Q. So he would be loser on your theory not getting that back?

A. No, would not be loser, counting something he is not entitled to.

Q. What?

A. This depreciation compounded.

Q. Under this theory, we are talking about this theory and not about what ought to be, but the theory on which this report is made. Under the theory on which this report is made he is entitled to just that thing, that is to have that \$22,806 added to the investment until he is reimbursed?

A. Assuming the Hagenah theory to be correct, yes.

Q. Under that theory he is entitled to have this added?

A. He is not.

Q. Not under that theory?

A. Only entitled to have added the difference between that \$22,806 and \$5,997.

Q. So if the expense and the depreciation for each year leave nothing to be applied on the return so he got no return, then he would not be entitled to have anything added for that year, that is right, isn't it?

A. That seems right.

Q. Have you carried out the logical conclusion.

A. Yes.

Q. So the bigger his loss was under this theory the smaller his reimbursement would be?

3348 A. No.

Q. Take arbitrary figures for a minute. This \$22,806, the difference between \$22,806 and \$5,997 and your operating?

A. Give him an operating expense \$68,562.

Q. On that assumption the only thing left that was met would be the amount of your depreciation wouldn't it?

A. No, I don't think that is a proper interpretation of that at all.

Q. Well take such figures as on the assumption the amount left in at the close of the year will be \$5,597 with nothing for a fair return. On your theory that would give nothing to the depreciation fund

and with absolutely no return there would be nothing to reimburse the investor, that is right isn't it?

A. No, I don't agree with that.

Q. What is wrong with that, why don't that drive you to this position?

A. If you take this one allowance for depreciation.

Q. Take these specific figures where there is not any return except an amount just enough for depreciation?

A. The first year he gets you state to me, that is more than enough.

Q. I want to illustrate your theory by taking a case where it is not, and then want to ask you where the investor would come in, assuming that what is left after you take care of your depreciation goes into the capital.

A. The investor would be left with the balance of \$2,300,000.

Q. You are not answering my question are you?

A. As I understand your question.

Q. Well Let's try again. Take this first year and assume that your expenses were such that the amount left after you made
3349 your gross earning deductions just took care of your depreciation, \$5,997, upon your theory that would be set aside and draw 8 per cent?

A. Yes.

Q. How would you take care of the loss of the investor?

A. The investor is being taken care of as the years go past.

Q. This is the first year?

A. The first year you will carry forward whatever balance you will carry to make up your 8 per cent?

Q. He would not carry forward anything on your theory?

A. I am not quarreling at all with the theory.

Q. The trouble with me is you are not answering the question.

A. I can't understand it.

COURT: Suppose that that plant had been earning 8 per cent right along, figures out 8 per cent as I understand this Wisconsin theory is for the purpose of getting at the value of the plant?

A. Supposed to be the idea as I understand it.

Q. If it earned 8 per cent and run long enough it would pay for itself.

A. Certainly have a credit balance.

COURT: The more it earned the less the plant would be worth at the end of the period?

A. Certainly.

COURT: The less it earns the more it would be worth.

A. Exactly.

COURT: That would be the practical effect?

A. Yes.

COURT: On the other hand you take it they are not permitted to earn more than 8 per cent and the loss is simply made up to that, would be a different result?

3350 A. Yes, increase the value of the plant, it would increase the investment value of the plant.

Q. If you run over 8 per cent on this theory it increases this investment.

COURT: Well your report is based on investment.

A. I am not saying anything about the investment this way, I am dealing with it on this statement.

COURT: As I understand Mr. Hagebahl's plan, the Wisconsin plan as he explained it and as I understood it, the idea was to give the plant 8 per cent and no more, fix the value upon which rates are to be judged?

A. That is the theory, yes.

COURT:

Q. That and no more?

A. My idea is he did not apply his theory properly. That is the fundamental idea of the Wisconsin plan.

Q. If they had already earned that 8 per cent?

A. It would greatly reduce the value of the plant.

COURT: But you take this through your depreciation and make it what you term a fund and put it out upon interest at 8 per cent.

A. I don't care whether put in a fund or not. If they use depreciation and put it back in the business.

COURT: The difference between you two, you charge interest upon the depreciation, compound interest at 8 per cent?

A. Yes, he charges the depreciation in at 8—I might illustrate the thing this way if you take your depreciation reserve and make your additions to the plant out of your reserve you will be right down on the basis I have made you now. Even take your operating expenses and charge repairs against depreciation reserve and you will get down to the same result I bring out.

3351 Q. You have attempted to state here what we call the Wisconsin theory. Do you know of any case in which the Wisconsin theory has held that you should make deductions from the actual value of the plant or actual investment in the plant on account of the excessive earnings?

A. I think I am correct in stating that the Madison decision it pulls down the investment quite considerably.

Q. The actual investment?

A. The actual investment is pulled down on account of the excessive earnings, the earnings being in excess of the rate amount.

Q. That was in the Madison case?

A. Yes.

Q. Have you read it?

A. Read that part in regard to going value.

Q. Who called your attention to it?

A. I borrowed the report from Prof. Bemis, he had the case.

Q. And when?

A. It was within the last couple of weeks or so.

Q. Can you put it a little closer than that?

A. Well since I left here last.

Q. Can you put it a little closer than that?

A. I am afraid I can't. It was within about two weeks ago.

Q. Let us take for an illustration here some round figures so we can get away from the bother of odd amounts. Suppose you have a plant worth a million dollars and your depreciation is say \$17,500 you earn enough to pay everything including the depreciation except the return. Now you set aside your depreciation at the end of the year. What becomes of the return?

A. It goes forward—the absence of return goes forward into the next year.

3352 Q. In the absence of the return?

A. Yes.

Q. Then that would draw interest?

A. Yes.

Q. Now as a matter of fact that would have to draw interest in order to reimburse the investor?

A. Yes.

Q. More than that the investor would have to have the depreciation in order to reimburse him wouldn't he?

A. Yes.

Q. If he didn't have both of these he would not be made whole?

A. He would not.

Q. And he would be entitled to the depreciation at the end of that year wouldn't he?

A. Yes.

Q. At that time?

A. Yes.

Q. And the amount of depreciation that he would be entitled to would not be at all affected by what he did with it.

A. Not at all.

Q. Now then if you take that depreciation and interest that it earns away from him when you get through have you made him whole?

A. I am not taking it away from him. He has it.

Q. You have deducted from the amounts made and given here by figuring interest on this deficit and the amount of depreciation, \$392,662?

A. Yes, \$437,441 interest accrued on it. Took depreciation plus interest went into the plant.

Q. I don't care where it went, this man had to have both the depreciation and if the payment was deferred he would have to have interest on that and his return to make him whole?

3353 A. Yes.

Q. Mr. Hagenah gives him both depreciation and return?

A. I think he gives him depreciation twice that is all.

Q. You take away from him depreciation after giving it to him once?

A. I take away one. Mr. Hagenah doubles up on that depreciation and I separate it and give him one.

Q. Where does Mr. Hagenah give him twice?

A. On one side income charge depreciation on investment and not use it for getting reserve, purely a matter of book-keeping.

Q. If you give it to the investor and take it away from him and put in into reserve would he have it?

A. He has it used in his business, the reserve is there.

Q. As part of the value of the plant?

A. Yes.

Q. Then why do you deduct it from the value?

A. That depreciation is wearing down of the assets in the plant.

Q. You say you have this reserve, put it as part of the value of the plant?

A. Exactly, so much of the amount of the plant to be worn out and the reserve itself used as an extra consequently your original plant is not worth as much as you paid for it only worth what you paid for it less what you have reserved.

Q. Now you have gotten on another subject.

A. Same old subject.

Here the further hearing of this case was adjourned until 9:30 o'clock tomorrow morning.

3354

Friday Forenoon Session.

SEPTEMBER 15, 1911, at 9:30 a. m.

Counsel for the respective parties all present.

Testimony on part of Defendants resumed as follows:

JAMES HALL, continuing his cross examination, examined by N. T. Guernsey, Esq., testified:

Q. Now, Mr. Hall, I understood you to say yesterday that Mr. Hagenah put depreciation in twice and that you took it out once, because it ought only to go in once?

A. I don't think that is a correct interpretation of what I said.

Q. I prepared a statement here, Mr. Guernsey, a somewhat similar one, if you care to see it.

Q. Well, let us take this one first. You did say, as a matter of fact, didn't you, yesterday, that Mr. Hagenah put depreciation in twice?

A. That is the sum and substance of his statement.

Q. What I am asking you about is what you said on yesterday?

A. I will try and tell you what I said yesterday. I said this: Mr. Hagenah takes the plant at the commencement at its face value, one hundred dollars, and he adds his depreciation, compounding both figures.

Q. You said, did you not, on yesterday that Mr. Hagenah put depreciation in twice?

A. That is added—

Q. Just answer the question—didn't you say that on yesterday?

A. I don't recall using those words. I said—

Q. Don't get away from this; just let us stick to this for a moment. Didn't you say on yesterday, at least once, and probably

twice, that Mr. Hagenah put depreciation in twice, or that in substance?

3355 A. I don't recall saying that exactly that way.

Q. I don't want any limitations—didn't you say that or that in substance?

A. I will say that in substance.

Q. That is the fact, is it?

A. It seems to me to be the fact, yes.

Q. Now, then, let us take the first computation here for the first year. You start with \$308,983. Now will you add to that, please, additions to the plant, \$18,394?

A. Yes, \$327,377.

Q. Now take the two interest charges, amount to what, together?

A. \$25,455.

Q. Now, then our operating is \$51,753?

A. Yes, sir.

Q. Our depreciation \$5,997; that makes how much?

A. \$410,582.

Q. Oh, no; you misunderstood me. Add operating and depreciation together?

A. \$57,750.

Q. Now you- income was how much, your revenue?

A. \$78,793.

Q. So that you had left after paying your operating and depreciation, how much?

A. \$21,045.

Q. The return he was entitled to was \$25,455?

A. Yes.

Q. And you didn't have quite enough to pay the return?

A. That is so.

Q. Now deduct that, will you, and tell us what the balance is?

A. \$4,412.

3356 Q. Now, then, that year the depreciation did not go into this fund to be compounded?

A. Yes, the depreciation goes in there to be compounded.

Q. There is only \$4,412 in the aggregate?

A. No, after taking out \$5,997.

Q. In order to get that depreciation in there, to add it to the capital because it had not been paid in the first place, you wouldn't have enough deficit to get it all in?

A. What in?

Q. All the depreciation out of that year's business?

A. I don't get that question at all.

Q. Well, then I will try it again. You- gross income from that year's business is enough to pay your operating and your depreciation and your return, but with a deficit of \$4,412?

A. Yes.

Q. So that the deficit in that year amounts to less than the amount of your depreciation?

A. Yes.

Q. Now, then, that \$4,412 wouldn't be a deficit in depreciation; it would be a deficit in return, wouldn't it?

A. Yes.

Q. So that no depreciation would go into your additions there; your additions there would be made up of \$4,412 that was short on the return?

A. Yes, subject to the deduction of the depreciation.

Q. But deduction from what?

A. Well, take your plant at the beginning of the year, \$308,983; you do not contend it is now worth \$308,993, plus depreciation; it is only worth 98% of its original value according to Mr. Hagenah—

Q. But I have put this in a different way as I think you
3357 misconstrue it or have a misunderstanding of it. I have simply taken the plant and the additions to it; that is proper, isn't it?

A. Yes.

Q. I have got \$327,377?

A. Yes.

Q. Now, then, in order to maintain that at that amount I must have that depreciation given to me on this depreciation basis, must I not?

A. Yes.

Q. I must also have my return, or else I am short?

A. Yes.

Q. It develops that after they give me that depreciation, to maintain my plant in that condition, I am short \$4,412 on my return?

A. On that theory, yes.

Q. That is the theory that is made up on?

A. Yes, but it is a wrong theory; that is the Wisconsin theory.

Q. But I have maintained my plant just as it was, \$327,377, because they have given me that depreciation to do it with?

A. You have maintained that plant at its original—

Q. Yes, with that depreciation, but I am short \$4,412 of return?

A. Yes.

Q. Now, then, I put that return into my plant as a part of my earlier losses because if they have not given me the return the best thing they can do is to pay me interest on it, defer it and pay interest on it. Then that gives me, when I add \$4,412, \$331,789?

A. Yes.

Q. How did we get depreciation in twice there?

A. You have the original value of the plant, \$308,983, which you claim is at its face value, plus an allowance for depreciation. I would not contend that the original value was 100%; I con-
3358 cede you 98% plus depreciation.

Q. Well, I don't know what you mean, but I am sure your intentions are good. Now let us come back to earth. I have here \$327,377, haven't I?

A. Yes.

Q. Now, I was entitled to depreciation to keep that good for that year on this 2% basis to \$5,997?

A. No, not as you are figuring this here—

Q. Isn't that the amount of the depreciation?

A. That is the amount of the depreciation, but you already have your depreciation in your original allowance, \$308,983.

Q. We start with \$308,983 as the value of the plant?

A. At 100% value.

Q. Just let me ask the question, please. Now, then, leave these figures out. We will start with something that is hypothetical. I have got a plant worth \$100,000 at the beginning of the year and I am entitled to a depreciation of 2%?

A. Yes.

Q. I am entitled to 8% return?

A. Yes.

Q. That depreciation would be \$2,000?

A. Yes.

Q. We will say it cost me \$15,000 to operate it and that I have got an income of \$21,000?

A. Yes.

Q. Now I take that, at the end of the year my plant without the depreciation is worth \$98,000?

A. Yes.

Q. Now I take that income and I first pay my operating and that leaves me \$6,000 and then I pay my depreciation; that leaves
3359 me \$2,000. I put that \$2,000 back there to bring my plant back to 100%. Now, then, I have \$4,000 left to apply on my return and I am short \$4,000?

A. Yes.

Q. I add that \$4,000 to my \$100,000 because they have not paid me and we will say they owe it to me and pay interest on it?

A. Yes.

Q. Now, then, have I got anything out of that except just what I had when I started, plus the fair return?

A. Yes, figuring on this theory you would be getting \$106,000—

Q. Just wait a minute—on these figures, what have I got at the end of the year?

A. You have your \$98,000, depreciated value of your plant.

Q. I have got \$2,000 depreciation?

A. Yes.

Q. That brings it back to where we started?

A. Yes.

Q. That is \$100,000?

A. Yes.

Q. I have had \$4,000 in income?

A. Yes.

Q. I have taken out my \$4,000?

A. Yes.

Q. I was entitled to \$8,000?

A. Yes.

Q. I failed to get the second \$4,000 so I have added that to the value of the plant?

A. Yes.

Q. Have I made any money?

A. No.

3360 Q. I am just square on that?

A. Yes.

Q. And if you didn't give me that depreciation I would be just \$2,000 short?

A. Yes; but you commenced this hypothetical question, you commenced with your depreciated value at \$98,000.

Q. In what question?

A. We commenced the plant with \$100,000 which depreciated to \$98,000.

Q. During that year?

A. Exactly.

The MASTER: The difference between you gentlemen is just this: he figures on the value for a rate all the time and you figure on the investment, that is the difference.

Mr. GUERNSEY: I don't think that is exactly the difference between us.

Q. You don't think they would be permitted to put this back into the plant?

A. No, not in actual practice.

Q. Now I call your attention to Exhibit 56, which is a computation on this same basis, except no allowance for depreciation whatever is made, so of course the capital is not maintained unimpaired, and that checks out with what the total is there, the final figure?

A. \$2,305,758.

Q. Now, then, will you give us the figure you got here after you deducted depreciation?

A. \$2,306,128.

Q. Now, would you say that confirms my notion that what you have done is simply to take the man's depreciation away
3361 from him in making what you say, your corrections of Mr. Hagenah's computation?

A. I take the man's depreciation plus the interest at which it was compounded.

Q. So that the difference between you and Mr. Hagenah is, you do not allow depreciation and Mr. Hagenah does?

A. No, I allow the man to maintain his plant at his original hundred dollars and Mr. Hagenah is insisting it is a hundred and two dollars.

Q. Will you at your convenience check over this Exhibit 56. I won't ask you to do it now, but I want no question between us ultimately as to the correctness of the computation?

A. Yes, I am very pleased to.

Q. Will you also, if you find any errors in the computations call our attention to the matter?

A. With pleasure.

Mr. GUERNSEY: With that understanding we offer Exhibit 56 in evidence.

Objected to on part of defendants as incompetent, immaterial,

not cross-examination, and based upon assumptions not in the evidence or record.

Q. Now, Mr. Hall, I wish you would turn over to a later page here which you headed, Des Moines Gas Company Annual investment value on a six per cent return basis, in Exhibit 33; this computation which you made yourself is based upon the valuation which was made as of December 31, 1895, plus \$50,000 working capital, and on a 6% return, and upon your depreciation allowance; is that right?

A. Yes.

Q. Now, before we get into the computation itself, I notice 3362 one thing here, that your annual allowance for depreciation is \$245,862 and the interest on it amounts to only about one-third of that; how did you compute the interest?

A. Six per cent compounded.

Q. Now then in your other computation here, your interest amounts to \$437,441 against the depreciation charges \$392,362.

A. Yes.

Q. The difference I suppose is due both to the difference in the rate and time?

A. Yes, and the amounts being larger.

Q. Now you have a column here, net revenue, allowing six cents per thousand cubic feet on sales; how did you get that column?

A. That is the gross revenue shown by your books, except where adjusted in the last five years, less operating with six per cent added for depreciation.

Q. Give me the items that go into \$36,351.

A. I can't give you that off-hand.

Q. Did you make the computations?

A. I had them made.

Q. Have you ever seen the items?

A. Yes, in the rough.

Q. Where are they—the reason I ask this, I went over it and it did not check exactly, I wanted to see where my difference was.

A. It does not check with Mr. Hagenah, I know, but I can give you the computations, I think.

Q. You take December 31, 1896?

A. If you take page 29 in this report, we have there the total revenue and total expenses

Q. Well, let us take this one and see what your revenue is for 1905?

3363 A. The revenue is \$369,375.

Q. Put that down, will you please.

A. Yes.

Q. Now what is your operating?

A. Including depreciation?

Q. No, without it; your revenue is given on page 19 \$127,527 isn't it; that is, your net revenue?

A. It is page 29.

Q. Yes. Your operating you have there, including depreciation is \$241,848.

A. Your depreciation is \$20,064.

Q. Take your operating, including depreciation on page 29, \$241,848. and subtract it from \$369,375. and that gives you what?

A. \$127,527.

Q. Is that the way you get at these figures in this Exhibit 33?

A. Yes.

Q. You couldn't get all of them—yes, you could from that table there?

A. Yes. There are slight variations with Mr. Hagenah's report, I know.

Q. What are those variations due to?

A. I can't answer that off-hand. As a matter of fact we investigated to find out what they were, but were not entirely satisfied where he got his figures.

Q. Take the first year here, ending December 31, 1895, and you had a total revenue of how much?

A. \$95,412.

Q. That would be \$36,351.

A. Yes.

Q. Now by this computation here you get an investment value before you deduct your depreciation, what you call an investment value, of less than you compute the actual investment after you deducted depreciation?

A. Yes.

Q. What is the purpose of this table—you get a result of \$941,268?

A. The purpose was to demonstrate the absolute fallacy, in my judgment, of the Wisconsin theory.

Q. That is assumed, that the Wisconsin theory makes such deductions?

A. Assuming it is unsound, but that it permits you to capitalize the deficiency of six and credit your excess over six.

Q. The next table is the same thing on a seven per cent basis?

A. Yes.

The MASTER: Will you tell me what the amount at six cents per thousand cubic feet of gas allowance for depreciation would be?

A. \$245,800.

The MASTER: I am talking about this one; I wanted it for the year ending December 31, 1895.

A. \$3,666.

The MASTER: Is that the amount of gas for that year?

A. At six cents.

Q. How many cubic feet of gas was there that year?

A. 61 million feet, in round numbers.

The MASTER: How much was it for the next year?

A. We allowed, \$4,586. On pages 17 and 18 of the report they are all figured out.

The MASTER: I notice that makes a difference of \$6,000 in the first year between you and Mr. Hagenah; the next year you get it over \$3,000 more than he has it?

A. I don't know that I follow you.

3365 The MASTER: Well, it is not material.

Q. Now, your next table is the same thing on an 8% basis?

A. Yes.

Q. And to summarize, on Exhibit 33, as I understand it, your purpose is simply to show that it don't mean anything; that it is unsound?

A. No, I think this is a sound way of applying the theory, but I do not approve of the theory.

Q. That is the purpose, to show that the whole thing is unsound?

A. Yes.

Q. Turn to this chart in your report; this dotted line represents the return, does it not?

A. Yes.

Q. And that shows that since 1908 the rate of return has been going down?

A. Yes.

Q. It also shows radical variations in the rate of return?

A. It does, yes.

Q. It shows that while the revenue from the sales of gas has been gradually increasing, and the sales have been increasing pretty nearly on a uniform curve, there have been marked variations in the return during this same period?

A. Yes.

Q. The fact that the return does vary in this way and that it does not seem to follow any fixed relation to either the sales or revenue from the sales of gas, indicates that there is more or less instability in the business, doesn't it?

A. Or that you have been extending your plant quite extensively.

Q. Take your investment in the plant, that investment increases by a curve as compared with the return, the curve is uniform?

A. Yes, compared with that it is.

3366 Q. For instance, you take this return curve, in 1895 it runs down?

A. Yes.

Q. Then from 1896 to 1898 it runs up?

A. Yes.

Q. Then during the year '98 and '99 it runs down?

A. Yes.

Q. The next year it runs up?

A. Yes.

Q. The next year it runs down a little?

A. Yes.

Q. The next two years it runs up?

A. Yes.

Q. And the succeeding year, 1904, it runs up very decidedly?

A. Yes.

Q. In 1905 it runs up just a little?

A. Yes.

Q. In 1906 it drops as decidedly as it ran up in 1904?

A. Yes.

Q. Then in the next two years it runs up again to 1908?

A. Yes.

Q. From 1908 it has been running down steadily?

A. Yes.

Q. Now, then, during that same period your investment has been increasing by a relatively uniform curve, hasn't it?

A. In the last five years it has made quite a decided jump, but relatively to the drop it is about right.

Q. That curve as compared with the return curve is relatively uniform?

A. Yes, it is not much out of the way.

Q. During this same period the gas sales and revenue have
3367 been increasing on the uniform curve?

A. Yes.

Q. Don't these facts indicate that there is more or less instability in this business?

A. No, I wouldn't go quite as far as that. You might reason from this last curve that the operating expenses took a very decided increase here, which would explain the drop during the last two years in net revenue.

Q. If you take a line, beginning in 1898, take a rule and run it across here to the operating, at the end of 1910, you will find that if you made that an absolutely uniform curve, projected it over 1907, it would hit right where it is now, wouldn't it, or a little above where it is now, on a uniform basis, starting from 1898 and going through 1907, and projecting it?

A. That would seem to be right.

Q. Now, then, where you have a business where the return varies as radically as is shown by this chart here, in the business of this company, and where it appears that for the last two years the tendency has been downward, you have got to make some allowance in order to make a conservative or reliable estimate as to the income in the future?

A. You cannot accept any chart without considering all the circumstances and conditions.

Q. That don't answer my question. You must where there are variations to that extent in the return, where it is not a uniform return, like interest on a note or something like that, take these variations into account in making your estimates for return.

A. Your variations have to be considered.

Q. You cannot assume that you have a regular return in the future where the history shows that in the past it has been irregular?
3368 A. I would not assume the high peak for judging the future.

Q. You would assume there had to be some give and take there?

A. You have got to have give and take in fixing any rules.

Q. You could not run this business, could you, or it would not be on a sound basis if you ran the business on the assumption that it was going to take every dollar that you earned to pay your interest, operating expenses and your depreciation?

A. I should say the stockholders would want something.

Q. Suppose you had a proposition that showed it would pay 8 or 10 or 6 per cent, or whatever per cent you would want on your invest-

ment, plus your expense and your depreciation, that would take \$100,000, and you had a business that earned just a \$100,000 and did not earn a dollar of surplus, that wouldn't be a satisfactory business?

A. I should not care to run it that way myself.

Q. In other words, to put the thing on a sound basis, you have got to have some margin over that?

A. You have got to have a margin in any business.

Q. If you don't, you are insolvent?

A. You will get there some day.

Q. Now, I want to call your attention to Complainant's Exhibit 57. In the first place, in order to avoid any misunderstanding, I will say there is a memorandum on this "Hall Exhibit F" and is simply for the purpose of calling attention to one of the exhibits to your report, and you are not expected to assume any responsibility for it. Referring to this Exhibit 57 I will ask you to look at Exhibit F of your report and state whether this Exhibit 57 correctly shows the average working capital of the company for the five years covered by that Exhibit F, not deducting the accrued interest and taxes and shows that to be \$197,292.97?

3369 A. Will you accept yes, subject to the fact that I check it out.

Q. I have no objection to doing that, if we may offer it now and any corrections that may be desired will be suggested afterwards, so that the burden is not on us to show that it is done.

A. That is all right.

Q. Now, then, if we deduct the accrued interest and accrued taxes the actual working capital which the company has employed in its business during the last five years would average \$197,229.97.

A. It does not say that here.

Q. That is the fact, isn't it?

A. You have not deducted anything for accrued taxes and interest in this statement.

Q. I meant the question to show they had not been deducted.

A. Subject to the exclusion of these factors, yes.

Q. I wish you would look at Exhibit 58 which also contains a reference to Exhibit F of your report, as the source from which it is obtained, and look at your report and check that over and tell us whether that shows the average working capital that this company has used for the last five years upon the basis upon which you have computed the working capital, at \$68,000; I would like to have you check this now.

A. There is something wrong with some of these figures, in your current liabilities and bills payable, it does not foot, that statement.

Q. Let us take it up; it is \$1,407,052.77?

A. Yes.

Q. And the average \$229,410.55?

A. Yes.

3370 Q. Now, then, you say the current liabilities and bills payable do not check?

A. Yes, there is a difference in it. If you substitute my figure

for your figure your statement will foot all right. I think it is a mistake in insertion.

Q. What is your figure?

A. \$160,902.92.

Q. And do you get the same total \$538,512?

A. Yes.

Q. So that it is evidently a mistake in copying?

A. A clerical error.

Q. Then the average is right \$321,858?

A. Yes.

Q. Then the result is correct, \$121,708.13?

A. Yes.

Complainant offers and reads in evidence Exhibits 57 and 58.

Mr. BYERS: We object to Exhibits 57 and 58 because they are incompetent, immaterial and not cross examination, and the tables are based upon assumptions not in the record and for which no foundation or basis has been laid, and not the best evidence of what is claimed to be shown by the exhibits.

Said Exhibits are as follows:

3371

"COMPLAINANT'S EXHIBIT 57.

Des Moines Gas Company.

Working Capital, Including Current and Working Assets and Current Liabilities Less Bills Payable.

(Hall Exhibit "F")

	Total 5 years ended Dec. 31, 1910.	Average.
Materials and Supplies	\$ 636,257.52	\$127,251.50
Accounts Receivable	261,177.75	52,235.55
Bills Receivable	712.50	142.50
Cash	248,905.00	49,781.00
Total	1,147,052.77	229,410.55
Current Liabilities Less Bills Payable	160,902.92	32,180.58
Total	\$986,149.85	\$197,229.97

3372

"COMPLAINANT'S EXHIBIT 58.

Des Moines Gas Company.

Working Capital Including Current and Working Assets & Current and Accrued Liabilities.

(Hall Exhibit "F.")

	Total 5 years ended Dec. 31, 1910.	Average.
Current & Working Assets.....	\$1,147,052.77	\$229,410.55
Current Liabilities Less Bills Pay- able	160,902.92	32,180.58
Bills Payable	101,635.47	20,327.09
Accrued Liabilities	275,973.75	55,194.75
	<u>\$ 538,512.14</u>	<u>\$107,702.42</u>
Total	\$608,540.63	\$121,708.13

3373 Q. Mr. Hall, in view of the objection to Exhibit- 57 and 58, that they are based upon assumptions not shown by the record and not proven here, I will ask you to state whether in checking them you found they are based upon Exhibit F to your report Exhibit 33?

A. They are the totals of certain items.

Q. The figures appearing in Exhibit- 57 and 58 and the totals there are taken from your statement Exhibit 33 of the results of the operation of this Company?

A. Yes.

Q. And you have checked Exhibit 57 with Exhibit 58?

A. Yes.

The defendants here again interpose the same objection to Exhibits as offered.

Q. I meant to ask you, and to be understood in asking you whether you checked it at the same time that you checked Exhibit 58?

A. I did.

Q. Now, referring to Exhibit A in your report which shows the income and profit and loss for the five year period, that is not as the books show it, as I understand it; but there are certain changes made?

A. Yes.

Q. And what those changes are nowhere appears in your report, does it?

A. Not in dollars or anything like that. Two of those are mentioned on page 28.

Q. What are they?

A. Tax omitted by the Company \$1,287.37; the replacement values and expenses excluded. In the prior page there is a reference made to the accident claims of the two months having 3374 been excluded.

Q. Now is the result or effect of these changes to show a greater or less income than the books show?

A. Somewhat greater.

Q. And none of these expenses that you struck out were either illegitimate expenses or expenses that had not in fact been paid?

A. No, perfectly legitimate.

Q. When you struck out that loss and damage item, for instance, because the accident had arisen at an earlier time, did you go back and charge that against the earnings of the earlier period in figuring our operations?

A. Yes.

Q. Where is that shown?

A. It would be in the year, February 28, 1906.

Q. Is that the year in which the accident occurred?

A. That is my recollection.

Q. Isn't that something that Professor Marks said he was told occurred sixteen years prior to that time?

A. I have no idea what Professor Marks testified.

Q. You didn't find anything of that kind, any charge on account of accident or damage occurring sixteen years prior to this five year period?

A. I do not recall hearing anything about that matter.

Q. Do you know anything about it?

A. Not a thing.

Q. You say you don't recall; what I want to get at is whether you ever did know?

A. I may have, I don't know.

Q. You did not investigate it yourself?

A. No.

Q. Do you know whether this amount that you deducted here in 1906 was that the year for which the deduction was made?

3375 A. I moved the charge back from the two months to the prior year and included it as an expense there.

Q. Are you sure about that?

A. That is my recollection.

Q. You didn't do it yourself?

A. I didn't do it myself.

Q. Have you ever looked—do you know anything about it?

A. I know the charge was moved back on my instruction.

Q. Was it moved back to the time when the accident occurred?

A. My recollection is, to the year preceding.

Q. Was that the time the accident occurred?

A. I don't know when it occurred.

Q. Then it was wrong to put it in the year preceding?

A. I wouldn't say it was wrong.

Q. Just as a matter of practical book keeping, what would the Gas Company do if a man was injured, say today, and he brings his suit in six months, and it is settled, say in eighteen months after that; now how would they get that on the books?

A. Good book keeping would dictate that a reserve should be set up each month to cover such risks.

Q. How would they get this accident on the books as of today?

A. They cannot get the accident on the books until such time as they pay the claim.

Q. That is right?

A. That is proper.

Q. It is rather impossible to do it in any other way?

A. There is usually a record kept in the office of claims in big corporations, of what they anticipate is going to happen.

Q. What I want to get at is how the Gas Company could
3376 do what you say it ought to do here as a practical proposition?

A. The practical proposition in my judgment is to set up the item each month on the basis of business done, charging operations with the amount and crediting the reserve with accident and damages.

Q. How much ought that to be?

A. Your books have a cent for 1911.

Q. By the way, when you made the estimates for our guidance in the future, did you make such an addition to the pers, the cost of gas per thousand?

A. Yes.

Q. That would have decreased your return to that extent?

A. To that extent.

Q. The matter I referred to in Professor Marks' report was this: on page 84 he has total operating expenses for the five years as per the company's books \$1,466,821.22. I wish you would give us the total operating for the years as your report shows them corrected?

A. Do you wish the miscellaneous sales separately?

Q. Where is this?

A. In Exhibit "A".

Q. Give it to me both ways?

A. It is on the first page there.

Q. You have your total operating what?

A. \$1,452,870.25.

Q. Is that before or after you deducted these miscellaneous sales?

A. Before.

Q. Now when you deduct your miscellaneous sales, it is what?

A. \$1,451,850.94.

Q. Now it is stated here in the report of Mr. Marks on
3377 page 84, accidents and damages 1893, \$3,685.17. Now is that the item which you deducted?

A. It seems to me the amount in dollars and cents.

Q. I understood Professor Marks to tell us on his examination, though it is some time ago and my memory may not be accurate, that he obtained the information from you or your assistants as

to this item, and the date of the accident—will you get us the date of that accident.

A. Yes.

Q. Was there any reason for pushing that back from 1906 to 1905, assuming the accident occurred in neither year, except to get it out of the operating for this five year period and so reduce that operating?

A. The intention was to get that operating for the five year period as nearly as possible accurate.

Q. You know, if you took out actual payments on account of the loss and damage and did not add some percentage to take care of that, your result would be inaccurate and too low?

A. I have so stated. I think I explained before that I made inquiries about your outstanding claims but got no information.

Q. Did you personally make those inquiries?

A. I answered a few days ago, no. I have since been told I did.

Q. So far as this testimony is concerned, you have no recollection of having made any inquiry of anybody?

A. I have no recollection of having done anything at all—

Q. You have no recollection of having made any inquiry of anybody?

A. Except of my own assistants.

The complainant moves to strike out the testimony of this witness as to these inquiries as being purely hearsay and secondary.

3378 Q. Now, I wish you would find out for me and let me know when we come in here this afternoon, if you can, just when this accident occurred, and also to just what year you added this amount as operating expenses?

A. Yes.

Q. Now turn over to the next table; that is the same thing, Exhibit B, as Exhibit A, except stated in a different way?

A. Yes, sir.

Q. That is, this is the result stated in cents per thousand cubic feet of gas sold?

A. Yes.

Q. Now does this revenue from gas that you have here, does that include Valley Junction or not?

A. Yes.

Q. Of course, this table will show the same variations from the books that there is in Exhibit A?

A. Yes.

Q. Because it is founded on Exhibit A?

A. It is founded on Exhibit A.

Q. This interest on floating debt, less interest received, there are two items in red, those represent periods where the interest received was more than the interest paid?

A. Yes.

Q. Now I will skip Exhibit C, which I think you compared with our statement covering the same matter?

A. Yes, that is prepared from your statement.

Q. There is a variation of 25 cents in the five years, but we will

let that go. Now, then, take Exhibit D; that is a statement of the cost of manufacturing and distributing gas, and that is again not the actual cost, but the cost with the deductions which run 3379 all through your work?

A. Yes.

Q. The red items here are profits?

A. Yes.

Q. And are deducted from the cost?

A. Yes.

Q. Now your next statement, Exhibit E, which purports to be the cost in thousand feet is predicated on the one that precedes it, I suppose?

A. Yes.

Q. Through Exhibit E are carried the same variations from the books which appear in the preceding exhibit?

A. Yes.

Q. Now, then, your balance sheet Exhibit F, how does that vary from the books, if at all?

A. That only varies from the books by the entry of \$264,108.78 reversed for these periods, that is, added to the investment account and also added to the surplus. In other words, that is how your books would appear had that entry not been made.

Q. It did not affect your general results here, as I understand it?

A. Not at all.

Q. Why did you reverse it then?

A. There didn't seem to me to be any particular basis for the entry.

Q. I thought you said it wouldn't affect the result?

A. It would not affect the result except in those two accounts, the surplus and your plant.

The MASTER: Is that credited to the profit and loss account?

A. No, sir; the profit and loss account was charged with that amount and credited to the plant account to reduce it.

Q. So the result of your change was to increase our surplus 3380 plus \$264,108.78, and increase the value of the property as shown on the books by the same amount?

A. Yes, sir.

Q. Now have you adjusted the surplus to take care of the changes you made in the operating expenses and things like that?

A. No.

Q. Then, of course, this balance sheet won't check with your operating results?

A. Not by those two differences, the replacement values and the federal tax, shown on the previous page.

Q. And interest and accident or damage and what else?

A. That is all I recall.

Q. In fact you don't know exactly how you did do it?

A. Oh, yes; I have a pretty fair idea.

Q. In your schedule 1 you gave the quantity of gas manufactured, and that is simply historical, and used also in making some of these computations?

A. Yes.

Q. Where did you get the information for this schedule?

A. From the records of the company.

Q. Well, be a little more specific; what records contain this information?

A. The records of gas manufactured sold and used by the company.

Q. What books show that?

A. I don't know.

Q. What did you call it, did you ever see it?

A. I saw the book one day; I saw some book on that subject.

Q. Do you know whether you got this from the books or took it from our statement?

A. I can't answer that. They were got out of your office.

3381 Q. You don't know whether they were worked up from the books or whether you accepted our statement?

A. I don't know, and I am rather indifferent.

Q. You haven't found any statement that we furnished you to be inaccurate?

A. Your statements are very accurate in as far as they go.

Q. Now this next schedule 2 is a comparative monthly statement of the quantity of gas accounted for and unaccounted for for the five year period; do you know where that came from, whether we furnished it to you or came off of some of the books?

A. It came off of some of your records.

Q. We furnished it to you or got it from the books?

A. I don't know; I would be glad to accept your statement of it.

Q. Now what do these figures in red mean in schedule 2?

A. An adjustment of the gas connected with the meter reading of the manufacture.

Q. That is not clear to me. Take this lower set of figures and it shows the gas unaccounted for?

A. Yes.

Q. In September, 3,211,438 feet, in red?

A. Yes.

Q. What does that mean?

A. I mean that month you sold more than you manufactured, or read meters for more than you manufactured.

Q. And it shows that somehow there was a surplus in gas somewhere?

A. Somewhere, yes.

Q. Can you explain that?

A. I am afraid I cannot go into that technically.

Q. Now, I wish you would turn over to schedule 6, headed, data relative to standard prices paid by the Company. What

3382 significance do you give to the word standard?

A. That would mean ordinary current prices paid by you during this period.

Q. Ordinary current prices?

A. Prices paid by you under the date mentioned, whether under contract or arrangement.

Q. Take oil for instance, did you put down the standard price for oil 2.8 per gallon?

A. That was the price under the contract.

Q. Under the contract of 1905 it was 4.4 per gallon?

A. About that.

Q. In 1906 4.5 cents?

A. Yes.

Q. In 1907 it was 4.55?

A. Yes.

Q. In 1908 it was 3.1 cents?

A. Yes.

Q. And then they made a three year contract at this minimum price?

A. Yes.

Q. So that you have not taken the average price, but the lowest price?

A. This does not purport to show the average price.

Q. Is it present prices or latest prices or lowest prices?

A. The latest price under this purchase.

Q. Take coke and we have the lowest price of coke for the last three or four years given by you?

A. Yes.

Q. Coke cost in 1909, 6.15 including freight?

A. Where do you get your figures?

Q. I didn't get them from your report.

A. I can't tell you anything about that.

3383 Q. You did not attempt then to give anything like an average price?

A. No, we got the price of this time, December 31, the last invoice under these items, irrespective of whether high or low.

Q. This would not afford any basis for determining the cost during the five year period?

A. No.

Q. And it would not be a reliable estimate to be based on the future prices?

A. It might assist in getting a reproduction value on the present price.

Q. You think in order to get the reproduction value as of December 31, 1910, you would take the price from a single invoice that happened to be the latest one without reference to what would be a fair price for a reasonable period of time?

A. If you were reproducing as of that time, you would be quite justified in taking the current market price.

Q. You think that would be a reasonable way to get at it if you were going to reproduce this plant and make an estimate for me what it would cost me to reproduce it, knowing that it would take me two or three years to do the work, and you would take a single price like that and base an estimate on it?

A. I didn't say so; that is simply a guide, that is all.

Q. It would be a very weak staff on which to put your money in?

A. I would expect the engineer to apply his own knowledge in addition to the price.

Q. You told us you had spent, I have forgotten how much time on

this report, and that the last part of the time was Saturday last week and Monday of this week?

A. Yes, I got a note of the days I spent.

Q. Can you give us the items?

3384 A. Yes, I was in Des Moines June 27th and 28th; I was in Des Moines July 14, August 3rd, August 15th, 16th, 17th, 18th, 19th and 20th. I put in some time in Chicago, running about 18 hours or 20 hours. I came back to Des Moines on the night of September 8 and spent Saturday looking over the various papers I had and spent Monday at the same thing and came here Tuesday.

Q. You did not come to Des Moines on the night of September 8th?

A. I left Chicago on the night of September 8th.

Q. You went to Colfax on the night of September 8th?

A. Yes.

Q. Who went with you?

A. Mr. Sangston.

Q. Who else?

A. Professor Bemis.

Q. Who else?

A. Professor Bemis' stenographer.

Q. How long did you stay in Colfax?

A. All Saturday and Sunday morning.

Q. And Monday?

A. And Monday.

Q. Who was with you there at Colfax?

A. Professor Bemis and Mr. Sangston.

Q. He was going over your report with you at that time?

A. I barely talked to Professor Bemis on Saturday.

Q. And on Monday?

A. I hardly saw him on Monday.

Q. You furnished him a copy of your report?

A. Yes.

Q. When did you furnish him a copy of your report?

A. August 20th.

3385 Q. And how often did you see him after that and discuss it with him?

A. I saw him several times after that; the report was discussed in a general way once or twice.

Q. When did he suggest you make up Exhibit 33?

A. He did not suggest it.

Q. Who did suggest it?

A. My own idea.

Q. When did he furnish you with this copy of the Madison case report?

A. My recollection is after I went back to Chicago on August 20th.

Q. And before you made up this Exhibit 33?

A. Yes.

Q. Have you looked *that* advertising literature?

A. No, I haven't had time to get that out.

Q. Will you do that for us?

A. Yes.

Q. The reason I want you to do it is, you leave it in your report as if it was a suspicious item and I want to know what the facts are?

A. I will do you justice.

Q. I wish you would give me the total sales for this five year period as you computed them?

A. They would be in round figures 2,292,035,000.

Q. That was the basis for the depreciation you charged during that period?

A. Yes.

The MASTER: There are certain rejected items, did you give the total of them?

A. I gave it from the record yesterday.

Q. Where are they?

3386 A. I don't know; the items are in the record; we read them over yesterday.

Mr. BRENNAN: Are they shown in your report?

A. No; the details are all in the record.

Q. Mr. Hall, will you prepare a memorandum showing the rejected items and if there was any provision made for taking them into the operating expenses anywhere else, showing what was done in that respect?

A. Yes.

Q. You referred several times in your testimony and in your report to an item of \$131,744.44 which was charged to the plant account and credited to profit and loss and subsequently distributed as a stock dividend May 1st, 1897. I refer to page 3137 of the transcript, and I call your attention to Defendants' Exhibit 26, and in that to the minutes of the stockholders' meeting held December 31, 1896, and to a resolution passed at this stockholders' meeting as follows:

"Thereupon A. B. Cummins offered the following preamble and resolution: Whereas, prior to this meeting the authorized capital stock of the Capital City Gas Light Company was three thousand shares of one hundred dollars each, aggregating three hundred thousand dollars, and

Whereas, the capital stock had been increased by amendment duly passed and adopted to six thousand shares of one hundred dollars each, aggregating six hundred thousand dollars, and

Whereas, the property of this company, real and personal including its rights, franchises, privileges, contracts and immunities is of the fair value of six hundred thousand dollars, after deducting its indebtedness, and

3387 Whereas, the present stockholders are entitled to the said increase of capital stock;

Now, Therefore, be it resolved, that the board of directors is authorized and directed to make a stock dividend of the said increase of capital stock, to-wit, of three thousand shares and to cause to be issued and delivered to each stockholder, according to his holdings as appears from the books of the Company, his ratable propor-

tion of the said increase of capital stock. Which capital stock shall be issued as fully paid and nonassessable. Whereupon A. B. Cummins moved the adoption of said preamble and resolution, which motion was duly seconded by W. B. Keffer and after having been duly considered by the stockholders of the corporation was adopted by an affirmative vote of all the shares of stock. Whereupon the presiding officer declared the said preamble and resolution to have been unanimously passed and adopted."

Q. You had seen that resolution, had you not?

A. I had not. I did not see it myself. I got an abstract of it.

Q. Who furnished it to you?

A. Mr. Sangston.

Q. You had seen this just as you have seen these other things, by proxy?

A. By proxy.

Q. Just as you had seen these other things you testified about?

A. I might just explain for your information, it is impossible for any accountant in practice to do the work other than by proxy.

Q. You notice I have not objected to any of this testimony of yours on the ground that it was secondary. Now I will call
3388 your attention to a minute from the directors' meeting of the same date at which there were present Mr. Cummins, Mr.

E. J. Pratt, and read from the record as follows:

"Whereupon A. B. Cummins offered the following preamble and resolution:

Whereas, the capital stock of this corporation has been increased to six hundred thousand dollars and three hundred thousand dollars thereof has not been issued, and

Whereas, the said increase of capital stock has been made upon the basis of the value of the property of the corporation, and

Whereas, the stockholders of the corporation at a special meeting, held in Des Moines, Iowa, on December 31, 1896, have ordered said increase of capital stock to be distributed to the existing shareholders proratably as a stock dividend;

Be it therefore resolved, that the President and Treasurer of the Company be and they are hereby directed to issue the said increased capital stock fully paid up and nonassessable to the existing stockholders in proportion to their present holdings, and to cause such entries to be made upon the books of the Company as will carry into effect this resolution. Upon motion the foregoing preamble and resolution was unanimously adopted."

These two resolutions I have read to you were the authority for the entry that was made and the stock that was issued?

A. Yes.

Q. And they were predicated upon the proposition that the property of the Company was worth the amount of this additional stock, that is, there was value there to represent it?

A. Presumably.

3389 Q. If that is so there was no water in the stock, was there?

A. If the assets were there to represent the \$300,000, there

would be no water in the stock, provided you have the tangible assets.

Q. Why do you use the word tangible?

A. Provided you had them.

Q. Will you say the company didn't have them?

A. I don't know; it did not have them according to its books.

Q. Do you mean that? That the books show or purport to show what was the value of the tangible and intangible assets of the company?

A. I would expect to go into your plant account and I would figure what would represent in your judgment the value of your assets.

Q. How could that make that plant account represent the value of the assets as distinguished from their cost, except by either making additions to it as made under these resolutions, or subtractions as were made in the \$264,000 item?

A. That is one way.

Q. What other way would there be of making our plant account agree with the actual value except by making additions or subtractions to it arbitrarily in accordance with our judgment?

A. That is not good book keeping.

Q. I ask you this: you said something about the plant accounts representing our idea or value, and how are you going to take care of the difference between cost and value except by some entry?

A. It is not customary in book keeping to take care of cost and values.

Q. Then it is not customary to do what we did?

A. They do it very often, quite common practice.

Q. If they do do it, how are they going to do it except by making such additions or subtractions?

3390 A. You might put it down on the basis of appraisal.

Q. Suppose you took an appraisal—you don't know whether they had an appraisal back of the resolution or not?

A. It would be in the resolution if there was; I don't know anything about it myself; if there was it would be mentioned.

Q. You think it would be mentioned?

A. I think it is almost certain to be.

Q. To get back to my question, I wish you would answer and tell me how, except by making some additions or subtractions from this property account or plant account, they were going to make it show the actual value as distinguished from book cost?

A. Assuming your actual value is more than the book cost, you must make an entry.

Q. And if your actual value is less, you have got to make a subtraction?

A. Yes.

Q. These amounts must be predicated upon somebody's judgment?

A. Yes.

Q. If that judgment is sound or reasonably sound, it is wrong to call it water?

A. If your judgment is sound and you have the assets, I would not call it water, no.

Q. Now, on page 3137, after you refer to some item, you were asked this question: "Q. So that the actual value would be even less than \$1,423,953? A. Yes, would be subject to a deduction of \$211,468.16 and \$134,297.44 mostly making up that appreciation"—you used the words "actual value" there; you didn't mean it, did you?

A. Actual cost as shown by the books.

Q. You didn't mean that there, you mean the actual cost
3391 shown by the books with the additions and subtractions we talked so much about yesterday?

A. Yes.

Q. There is one thing on page 3146 of the transcript—your Exhibit 33 is read in the record here and it is a reconciliation you made at the request of the court of the difference of something like \$200,000 and your cost figures and Mr. Hagenah's?

A. Yes.

Q. You took some items aggregating \$470,173.66 beginning with \$295,383.08?

A. Yes.

Q. That was taken from Mr. Hagenah's statement and was the amount with which he started as the original investment plus the additions down to your statement?

A. Yes, it was an attempted reconciliation between the two ideas.

The MASTER: The table that shows Mr. Hagenah's investment will show it.

A. I might say that was the big table of Mr. Hagenah's.

Q. Now I want to call your attention to something on your direct examination at the bottom of page 3151: The question refers to the salaries paid by the Des Moines Gas Company to officials of the Des Moines Gas Company residing at Philadelphia: "Q. So this whole matter is a matter of book entries, so far as the books here are concerned? A. Altogether, yes." What did you mean by that?

A. These salaries or checks and vouchers are made out in Philadelphia and sent here for signature and returned to Philadelphia and paid out of the funds in the hands of the treasurer. The treasurer in turn sends the entry to the people here and instructs them to put it on the books.

3392-3393 Q. This suggests something more than a mere matter of book entry?

A. Yes.

Mr. BYERS: What I meant by that was simply to show the transaction here of putting it on the books; I don't want myself to have any other inference drawn from that question.

The MASTER: I understood him the next day to make a correction of that.

Mr. GUERNSEY: I am reading from the testimony given the second time.

The MASTER: I understood him to say these warrants were drawn by the Philadelphia office and were endorsed by these officers.

Q. Now, then, if I understand you correctly, the checks are signed here?

A. By Mr. Haines and one other.

Q. Mr. Haines, Manager, and somebody else?

A. Yes.

Q. Now you said the entries on the books are made here when those checks are signed and mailed?

A. As I understand it, the entries on the books are made here when the journal entry comes from Philadelphia.

Q. What information have you on that subject?

A. Just from Mr. Sangston.

Q. The natural way to do would be to make the entries if they were keeping the books here, when the checks were signed and delivered?

A. No I think the natural transaction would be for the Philadelphia office to accompany the checks by a journal entry; at the time of signing the entry goes on the books.

Q. That is the way you think it is done?

A. I take it it is done that way; that is the natural way to
3394 do it.

Q. So that the people here signed the checks and then make their entries at that time?

A. Yes.

Q. There is nothing out of the way in that?

A. That is all right.

Q. Now on page 3152 I find, you had stated that there was an item on the books, talking about the federal tax, I find this: "Q. I wish you would state into the record just what the books show with respect to the federal tax and how the accounts would figure out? A. The books show in 1911 a federal tax covering the fiscal year of 1910 was paid on \$128,737.13; at one per cent that tax is \$1,287.37. Q. You found the item \$1,287.37 in the books, did you? A. Yes, sir; in 1911."

The MASTER: What was that paid on?

A. \$128,737.13.

The MASTER: That was the net?

A. The net earnings.

Q. Do you use the expression "net earnings" there in the same sense that we have been using it elsewhere here?

A. No.

Q. If we accepted that as a statement of the net earnings as we have been using it in the case here, that would be misleading?

A. No, that is not used in the same connection at all.

Q. You also said, referring to these taxes on the next page: "I might explain, that was paid under protest?"

A. I think I made that remark in regard to the 1909 tax.

Q. There was nothing either wrong or unusual or abnormal in that?

A. It was good business judgment.

3395 Q. Why did you call attention to it?

A. To give you the benefit of that.

Q. What benefit?

A. You was entitled to the benefit of trying to take care of yourself; a number of people paid it without protest.

Q. Everybody protested?

A. Everybody who consulted me paid it under protest.

At this time an adjournment was taken until 1:30 p. m.

3396

1:30 P. M., FRIDAY, *September 15, 1911.*

JAMES HALL being continued on cross examination by N. T. Guernsey, Esq., testified as follows:

Q. Mr. Hall, you promised to get me the specific description of the real estate which was taken into account by you in making up your figures as property of the company. Did you get that?

A. Yes.

Q. I wish you would take this plat which has been introduced as an exhibit which I believe is Exhibit 5 and shows enclosed in red the real estate owned by the company. I wish you would check the real estate that you took into account and see whether you took in all of it.

A. I am afraid I can't make anything of this plat.

Q. Well give me the description then of the real estate.

A. You had on January 1, 1895, real estate on the books at \$8,960.00—

Q. I want the specific list?

A. I can't give the specific list on that.

Q. You can tell from the books?

A. This begins 1895, the tabulation. I know nothing about it before that.

Q. Well can you find out from the books?

A. I can investigate it.

Q. Didn't you go over this real estate and examine the *vouchers*?

A. We accepted the Pratt affidavit as the start.

Q. What did you get after that?

A. February 28, 1897, the land located in Fourth district Des Moines, Polk County, Scott & Dean's Addition comprising Lots 3, 4, 5, 6, 7, 8, 9 and 10 in Block 5.

3397 Q. That is Block B isn't it instead of Block 5?

A. May be.

Q. You are reading the entry from ledger No. 4, folio 154?

A. I don't know where it came from, came from your ledger, which one I don't know.

Q. What are you reading from, one of these memoranda?

A. Yes, I am reading from a typewritten copy of a memoranda.

Q. Assume that is Block B which it ought to be, that date is February 28, 1897 isn't it?

A. Yes.

Q. Let's call that Block D then. Now what is the next property?

A. August 27, 1901, lot 4 in Block T.

Q. What next have you?

A. Lot 3 in Block T same date. These are the only additions except the cost of some curbing and surveying.

Q. That was 1901?

A. Yes.

Q. So you don't show lots 5, 6 and 7 in Block T, you don't take them into account at all?

A. Unless they are included in the original affidavit of Col. Pratt.

Q. Have you a copy of that affidavit?

A. No.

Q. You don't show anything in Block C at all?

A. Not unless included in that first figure.

Q. You don't show anything in Block K?

A. Not unless included in the Pratt affidavit.

Q. Nor in Block M?

A. Same answer.

Q. Will you look and see whether this in Block C, K, M, and Lots 5, 6 and 7 in Block T are included in that affidavit and let us know?

3398 A. Yes.

Q. Now there is an expression that I find here in your direct examination, page 3168 that I want to ask you about. You were asked if there was any significance in the apparent widening of the space between the lines on this chart of yours showing the operating expenses and gross revenue, the question and answer being as follows: "Q. What if any significance is there in the apparent widening of the space between these first two lines as you go up? A. Considerable dumping in of expenses in the year 1909 and 1910, especially 1910. The ratio of the sales appears to have been narrowed down." Now what do you mean by the expression dumping in? You mean to convey the impression of some illegitimate expenses there?

A. No, I do not. Quite willing to modify that to exclude any illegitimate expenses. I didn't intend to convey that impression.

Q. It is rather a peculiar way of referring to legitimate ordinary expenses?

A. Well it is perhaps a little rough on you.

Q. And that is not the way you intend it—

A. Oh I didn't intend to make any offensive remark about your expenses or hurt your feelings in any way.

Q. Now as a matter of fact as the business increased in volume you would expect the lines on the chart indicating gross revenue and operating to separate wouldn't you.

A. They would, yes.

Q. And that would be true if the ratio of profit remained the same?

A. Yes.

Q. And might be true if the ratio of profit was run down?

3399 A. Yes, might be to a modified extent.

Q. If it did not decrease fast enough to keep up with the increase of the business.

A. Yes.

Q. Now I want to call your attention to your direct examination on page 3174, this question and answer appear there at the top of the page "Take the bookkeeper for instance, where did he get his memoranda or data or facts or figures to go upon the books of the company here? A. They appear to come very largely from Philadelphia." Now did one per cent of the entries come from Philadelphia?

A. I could not put a percentage on it at all. I do know that the important items connected with the sale of bonds or anything of importance, officers' salaries and so on, came from Philadelphia. I would say quite a fair proposition.

Q. You say they appear to come very largely.

A. Well I regard these important items, I don't include ordinary routine work of the business, you would expect to get that here.

Q. What you mean is the unusual items?

A. I modify the answer to that effect.

Q. Would you expect the bookkeeper to enter up these unusual items without specific directions from somebody who is an officer of the company?

A. I would not.

Q. And where if the officers of the company live in Philadelphia where would be the normal place for these entries to come from?

A. I would expect to get the bulk of the entries O. K's by your local manager.

Q. As to sales of bonds for instance, where the home management did not make the sales?

3400 A. No, that would come — Philadelphia.

Q. Now a bookkeeper is like an ordinary human being in this at least isn't he, that he don't know what to put on the books, unless somebody gives him the information?

A. He should put nothing on the books without getting information.

Q. And the natural and proper source for the information would be from the officers of the company who knew.

A. Exactly.

Q. Now then take bond sales for instance you referred to them. Did you know that the trustee under the trust deed was in Philadelphia?

A. Yes.

Q. And you knew the bonds would be certified from time to time by the trustee?

A. Yes.

Q. Under resolutions of the board of directors?

A. Yes.

Q. It is the usual method, the only method I guess?

A. It is the correct method.

Q. You knew that the board met in Philadelphia?

A. Yes, I assume they did. I don't know, I assume they did.

Q. And the bonds would naturally be delivered to the treasurer there?

A. Yes.

Q. Now where would you expect under those circumstances that the information would come from as to these entries as to bonds?

A. Come from Philadelphia.

Q. The only place it could come from?

A. Of course it is where the transaction originated, must
3401 come from there?

Q. So there is nothing wrong about that is there?

A. No, with the one modification perhaps I think the entry might be a little more full than they are?

Q. Well we get to that. Now the next thing you refer to is contracts for materials and supplies. You found here copies of the contracts didn't you?

A. Yes.

Q. You found here canceled checks that had been given the tracts?

A. Yes.

Q. They agreed with the contracts as to prices?

A. Yes.

Q. You found here canceled checks that had been given the people who furnished the material?

A. Didn't examine them.

Q. You could have examined them if you wanted to? contracts wouldn't he?

Q. The ordinary man would be satisfied with going that far on contracts wouldn't he?

A. I don't know if he would.

Q. You don't?

A. No.

Q. How much further would you go?

A. There is always a suspicion, Mr. Guernsey on the subject of contracts, special discounts on them are known, met with them quite often in the ordinary course of business and got to be rather suspicious of them.

Q. The concerns you have been connected with then have been engaged in that practice?

A. I have met the practice quite often.

3402 Q. So that you would like to see whether there was some special discount?

A. Oh I would have a doubt occasionally about it.

Q. How is that affected by the situation here. You of course could go for instance, take the oil you could go to the books of the standard oil company and see whether they were paying anything back?

A. Yes, you would have a hard chance of getting them.

Q. With reference to these contracts was there anything suspicious in the price?

A. Nothing.

Q. Was there any suspicious circumstance in connection with them so far as you know?

A. I saw nothing to indicate anything at all except the natural suspicion I would always have of contracts.

Q. You would assume that therefore they are dishonest?

A. No, I am not assuming that, but it is wise to look into the matter usually.

Q. Referring again to the entries on the books that you mentioned, what entries were meager?

A. The entry relative to the sale of the bonds was somewhat meager.

Q. Now what did you find on the records of the directors as to the sale of the bonds?

A. I never seen them.

Q. They could not be sold without—could not be issued without some action of the directors?

A. Oh they were authorized by the directors.

Q. You don't know what these records showed then?

A. No.

3403 Q. You don't know that there was a directors' record as to each additional bond issued.

A. I know they were all authorized.

Q. That is you know because somebody told you?

A. No. I know because your entries states they were authorized at a specific meeting of the board of directors.

Q. The books show—the entry on what books?

A. The entry of the instructions from Philadelphia.

Q. The books show the amount of the bonds issued?

A. Yes.

Q. They show what they sold for?

A. Yes.

Q. They show the treasurer is charged with the proceeds?

A. Yes.

Q. They show something with reference to discount?

A. Yes.

Q. Now what additional information is ordinarily shown on such a set of books as to the sale of bonds?

A. As to who bought the bonds.

Q. That is shown by the books?

A. The whole record of a transaction of that kind should be on the books.

Q. The name of the purchaser of the bonds is usually put on the books when a bond sale is made, is that right?

A. Yes, my experience.

Q. Now give us some corporations that keep their books that way?

A. I don't think I am called upon to do so.

Q. Can you give us one?

A. I could if I would.

Q. But you won't?

3404 —. No, I won't.

Q. Could you give us two?

A. Yes. But that is a question of privilege and I am not going into it.

Q. So the only objection you make to these accounts is they don't show the name of the purchaser of the bonds?

A. Yes, sir.

Q. The prices don't look out of the way?

A. No comment on the price at all.

Q. It is simply your natural suspicion that leads you to suggest that the name of the purchaser ought to be on the books?

A. No suspicion about it, simply stating a fact.

Q. All that you have in mind when you say that the entry might be more full is that it might have shown the name of the purchaser of the bond?

A. Yes, that is one of the important items connected with a bond.

Q. Suppose they sold the bonds through a broker and don't know who the purchaser was?

A. You know the broker.

Q. Usually bonds that are sold through a broker are sold to a purchaser and you don't know who the purchaser is?

A. You know N. W. Harris & Company or whoever it is?

Q. Suppose they are sold through a broker?

A. You know the broker. All you have got to do is where you put them through the broker that is the end of the transaction.

Q. Do you think it would materially affect the person who happened to buy these bonds would materially affect the value of this plant or amount of its earnings?

A. Would not affect it at all.

3405 Q. Not in the remotest degree?

A. Not at all.

Q. Now somewhere as I recall it, you said in your direct examination didn't you that the treasurer's account was kept in Philadelphia and you didn't have access to it?

A. That is, was in Philadelphia with their records here.

Q. The account is kept here?

A. Account is kept on the ledger here, but the treasurer in Philadelphia keeps a separate account.

Q. He sends the entries here so that the two accounts correspond?

A. Well they should.

Q. So that if the books balance what you could have ascertained by looking at the other accounts you could find here.

A. If the current accounts there are off balance you could not find it here?

Q. They were in balance weren't they?

A. I don't know.

Q. Didn't you look to see?

A. No.

Q. Did you find any indication the books were not in balance?

A. I did not.

Q. As a matter of fact you found they were very well kept as you said?

A. The books are very well kept, yes.

Q. You were asked this question after you stated the treasurer of

the Des Moines Company sends the entries through to Philadelphia—that should have been from Philadelphia?

A. Yes.

Q. Then you were asked the direction is from an officer of this company who is in Philadelphia who is also one of the officers of the United Gas Improvement Co., and you said I understand he is. If it turned out the United Gas Improvement Company owned the stock of this company do you think there would be any impropriety in their being company officers?

A. I didn't offer that suggestion at all.

Q. Be the most natural and proper thing in the world?

A. I would rather expect to find the same men on both boards.

Q. That is what people usually do isn't it?

A. As a rule it is my experience.

Q. Now you referred to these bonds, some of them sold in earlier years at a discount of 10 per cent and some sold later at a discount of five per cent. What rate of interest did they bear?

A. Five.

Q. And after referring to everything here in detail your attention was called to a good many accounts or to a number of accounts or entries that were made pursuant to instructions from Philadelphia. None of those instructions so far as you know involved any impropriety?

A. None at all.

Q. You called counsel's attention to the fact that these entries were so made didn't you?

A. Were made on instructions of Philadelphia?

Q. Yes.

A. I don't recall whether I did or not. I will accept the responsibility of doing so.

Q. Counsel who examined you didn't examine the books or accounts did he?

A. No.

Q. You did examine the books?

A. Yes.

3407 Q. You gave them this information?

A. I or some of my assistants must have given it. I will accept the responsibility of giving it any way.

Q. Could not have been any purpose to bring it out except to sort of try and create a suspicion or something could there?

A. Oh no. I don't think you are just giving me a fair deal there Mr. Guernsey.

Q. Then it was the purpose to emphasis this matter so much and in the way in which it was emphasized if as you say it was entirely proper.

A. Don't you think it is fair to counsel that he should know all the facts connected with it and how business is done?

Q. Well yes, but my experience is that a witness calls counsel's attention to the material things.

A. Well I regard that as quite material.

Q. From which point of view is it material, for no other purpose

except to rather suggest some doubt about the transaction that we have to remove on cross-examination.

A. Not at all. I am not offering any suggestions about your transactions. I am simply doing what I am paid to do, advise counsel in the matter as to the position of affairs. That is all of my whole connection with it.

Q. Now you said with reference to some bonds sale that you could not tell what they did with the money, it simply went into the same pot. Is it usual in keeping the books of a corporation to trace the receipts so that you can tell for what purpose each identical item of receipts is disposed of?

A. You could not tell from any set of accounts.

Q. No of course not. Now referring to this bond sale again, you say in answer to the question this bond sale, how is it entered 3408 on the books up here and you answer entered as a straight bond sale and the proceeds charged to the treasurer and to the question just simply charged to the treasurer you answer yes and then the question to ascertain exactly what was done with that you would have to go to the books in Philadelphia, and you answer yes. Now do you think the books in Philadelphia would trace that particular fund, say they got a thousand dollars here and paid that thousand dollars out for that?

A. No set of books would do that. I didn't intend to convey that idea, if I did I didn't mean to.

Q. I have simply read what you said.

A. I didn't intend to convey that idea *al att*.

Q. Now you said this, page 3184, what do you have to say about anything like an intelligent examination or investigation of these books or papers being made in say five or six days. A. Well I would not take much stock in it myself. I would not place much value on it myself, personall- I could not do it. Now just what do you mean by that?

A. Practically what it says that you could not examine the books and accounts of this corporation in five or six days and do the subject justice.

Q. Could you examine the books and take what the books show?

A. You could accept the figures from the books in a modified extent in five or six days.

Q. How would you have to modify them?

A. You could get al- the books showed in five or six days, might get some if it.

Q. You could in five or six days very readily take the figures from the books as to the plant account or property account of this company couldn't you?

3409 A. Not in detail and by years. You could take the total figure off very easily.

Q. You could take the total off in a minute or two?

A. Oh a few minutes you could do that, but could not make any analysis in five or six days of that kind.

Q. That is what you mean, you could not take and check the figures and analyze the accounts is it?

A. Could not even analyze the account without checking the figures in five or six days.

Q. What do you mean by analyze?

A. Could not go over that account to ascertain by classes the extensions by years and by divisions in five or six days.

Q. What do you mean by ascertaining the classes of extensions and divisions?

A. Could you get an analysis of that account stating the extensions put in in years and in classification, the extensions of mains, meter service or anything else.

Q. Do you know of anybody attempting to do that in five or six days?

A. I have not suggested anything or attempted to do so, simply said I would not do it, would not attempt to.

Q. But you could go to the books and find out how much was invested in the plant as shown by the books without auditing it or analyzing it in a very much shorter time?

A. Oh fifteen minutes take your balance on the books, about fifteen minutes.

Q. That would be what the books showed?

A. That would be what the books showed in total.

Q. You could get at the end of each year what they showed at the end?

3410 A. Take the total at the end of each year.

Q. Very readily.

A. Oh take some little time.

Q. You said on page 3194 with reference to the U. G. I. Co., I see no record of their charging anything in respect to auditing, but they did make charges in respect to advertising service, engineering service, rate regulation expense and a few things of that kind. Now what advertising service did they charge for?

A. I have not got that information for you, I was going to get that information for you, but I have not got it yet. I promise to get an analysis of that account and I will get it for you.

Q. Were there any engineering services charged for aside from those in this rate regulation?

A. My recollection is yes. I will verify it.

Q. And the few things of that kind, what are they?

A. I will tell you all about it tomorrow.

Mr. GUERNSEY: I believe that is all with the exception of the things the witness was to furnish.

Redirect examination by Hon. H. W. BYERS.

Q. What did you mean in your response in your examination in chief where you said that to get a complete record of these transactions you would have to get the Philadelphia books at Philadelphia?

A. You refer to the bond transactions?

Q. Yes?

3411 A. I thought an examination of this company would involve an examination of the treasurer's account in Philadelphia.

Q. Now Mr. Guernsey asked you if the two accounts ought not to agree and you said yes they ought to. Is there any way you can tell by an examination of these books here whether they do agree or not?

A. You can't tell by an examination of one set whether it agrees with the other.

Q. Your answer as you gave it was made because of the information that you did have from the books here and the testimony that has been given already in this case that all of the stock of this Des Moines Gas Co., is owned by the U. G. I. and that the officers, the principal officers reside in Philadelphia and are officers of the U. G. I. and the testimony that there is a separate set of books in Philadelphia, is that right?

A. Yes.

Q. Mr. Guernsey asked you if you did not find vouchers here and oil contracts and other things of that kind. You did, but it does not follow does it that the vouchers show the real transaction?

A. Not always.

Q. The truth is that the books here do not show the truth in many respects as you have ascertained, isn't that so?

A. Would you mind specifying a little more, I don't follow you.

Q. Take this question of salaries for instance, the books here do not show the truth about that do they?

A. My understanding is no, they do not.

Q. Now they went through the form of making out vouchers in the name of each of these individuals just exactly the same as though they were getting their pay?

A. Yes, sir.

3412 Q. And that was too right at a time when the U. G. I. did have an account with this company didn't it?

A. Yes.

Q. That is to say there were other items in the books showing an account with the U. G. I.?

A. Yes.

Q. So that it does not follow at all because you find a copy of a contract here that has been sent here from somewhere else where another set of books relating to the same concern is kept, it does not follow that the contract shows the whole transaction.

A. I am sorry to say it does not.

Q. Been your experience very many times it does not?

A. I have found what are called special discounts quite often.

Q. You were asked about the real estate. All the real estate entries that you took from the books correspond with the entries as Hagenah has them in his sheet?

A. I don't recall what he has in his sheet at all.

Q. Anyway you figured out his sheet to ascertain the difference and you did not find any difference in real estate?

A. No, our results agree substantially barring the differences pointed out.

Q. Your results agree substantially barring the \$40,000—

A. At the commencement, \$120,000 for the holder, and bond discount of \$40,000.

Q. Mr. Guernsey has asked you several times about valuation. You did not attempt did you and it was not your purpose in your examination or in making the report to give the value of this property as that term is ordinarily used, the market value?

A. It was not.

3413 Q. You were also asked about your instructions or who told you what was wanted, what kind of an examination was to be made. You were told were you not that what the defendants wanted was simply to know what the books of this company showed the property cost?

A. That covered my instructions.

Q. Your investigation then was for the purpose of ascertaining as near as possible exactly how much money had gone into this plant here in Des Moines.

A. As shown by its books.

Q. What other purpose, if any did you have either in making the investigation and examination or in submitting a report here than to ascertain the investment in the Des Moines Gas Co.'s plant.

A. Well that was the whole purpose of the examination.

Q. And what do you have to say as to whether or not that is what your report shows?

A. That is what it purports to show.

Q. And what do you have to say as to whether it shows it substantially correct as shown by the books with the modifications you have already explained?

A. It does.

Q. Now just before we went to dinner, and it just so happened we had the pleasure of eating dinner with Senator Cummins, just before we went to dinner counsel read into the record a record with respect to the increase of stock of the Capital City Gas Light Co. from \$300,000 to \$600,000 and you were asked after the reading of the record whether you saw anything improper in that record, and as I remember it you answered that you did not suggest anything improper. Now does the books of that company show that \$600,000, either in money or property had gone into the

3414 plant up to that time?

A. No. I may say in further answer to your question that the Capital City company if it were being examined on behalf of a bond house, that \$131,000 would not stand in the plant account unless there was an appraisal brought forward to substantiate the whole figure at that time.

Q. The truth is I suppose, I don't know and want to get your judgment about it from your experience in these matters, they are all new to me, I suppose the truth is after listening to the reading of that resolution and record that it was not property in the plant that Senator Cummins referred to at all in his resolution, but the franchise that he suggests in his resolution has a certain value?

Objected to as leading and further because it is asking the witness not only to interpret the resolution, but state what was in the

mind of the person who offered it, which certainly cannot be competent on any possible theory and which no very conservative man would attempt to answer.

Q. Don't get the notion Mr. Witness I am asking in anybody's mind.

A. My judgment when I saw the entry was they capitalized the franchise and what they termed immunities.

Q. You were asked about assets aside from the so called franchise aside from whatever franchise they claimed to have at that time. Did the books show anything like \$600,000 in book assets over and above bonds?

A. The books showed assuming the \$131,000 was represented in assets the books showed that they were that amount short of the \$600,000. The \$600,000 capital stock being increased to that amount after declaring a stock dividend of \$300,000.

Q. The amount of stock that was issued at that time 3415 brought the total stock up to \$600,000.

Q. That I understand you was \$130 odd thousand dollars more than the assets as shown by the books?

A. Yes.

Q. So there was that much water if you use that term so far as the books were concerned?

A. Well if you call it water there was.

Q. And there was that much that if a rate for gas was to be based upon the capitalization there was that much of that capitalization that was not represented by the property or assets.

Objected to as leading and incompetent because it asks the witness to argue the legal proposition.

A. There was that much not represented by anything as shown by its books and the amount would want to be very carefully considered in rate making.

Court: You found a net income there available for dividends \$181,005.56?

A. Yes.

Court: Then a dividend of four and one fourth per cent had been taken out of it?

A. Yes.

Court: Leaving \$168,255.56?

A. Yes.

Court: As assets belonging to the corporation at that time.

A. Yes, their profits were invested in assets.

Court: In other words there was that much surplus?

A. Yes.

Q. The difference between that \$300,000 and that amount is what you call what, from the books?

3416 A. General Byers' term water, appreciation I will call it. Q. The chart that Mr. Guernsey referred to that is found in your report merely represents a computation and tables that are found on page 29 of your report.

A. Yes.

Q. In Exhibit 33, there are three tables, tables 3, 4 and 5 as I designate them. Mr. Guernsey inquired about these tables. These three tables are worked out to show what could be accomplished by the theory advanced by Mr. Haganah?

A. That was my idea.

Q. That Exhibit 56, I suppose that has not yet been offered?

Mr. GUERNSEY: I think you are mistaken, I think it is offered.

Q. Now getting back to the alleged difference between you and Mr. Haganah, that was broken off a little soon for me this forenoon. You suggested to counsel that you had a table that would illustrate that proposition very nicely. I wish you would hand it to me. Before I take it up I wish you would turn to your Exhibit 33 for a moment and just take the first item in the table and work it out for us and give us the amount that ought *ot* be carried in the first column in the second year on the correct theory of reaching investment values, correct according to your theory. Have you figures that for me?

A. Yes, sir.

Q. Give me the amount which should be carried down for the second year of that table in Exhibit 33, what do you make it.

A. Do you wish the process?

Mr. GUERNSEY: May we not have the amount first.

A. \$325,792.

Q. That is the first year's depreciation?

A. That is depreciation, y-s, charged that year taken out of the plant account.

3417 COURT: I don't see what you mean?

A. The plant at the commencement of the period has decreased in value from 100 per cent to 98 per cent. I reduce it to that 98 per cent admitting the charge as an operating expense which is entered to always maintain the plant at the par value of 100 per cent. In this table he has the value of the plant at 102 per cent.

Q. Go through it and give us the way you work it out?

A. I accept the value of the plant at the commencement of the year \$308,983. Add 8 per cent of the value \$24,719, subsequent additions during the year \$18,394, 8 per cent on the additions for sic months \$736.00. I charge operating expense after deducting allowance for depreciation giving a net result of \$21,043 deducted from the figure before we find it gives \$331,789. That depreciation was placed in in order to bring this plant to par value, consequently it has got to come out again and brings down the opening balance the second year to \$325,792.

Q. Take the sheet you offered counsel this morning being report marked Defendant's exhibit 24 and you may state what that is and explain it to the Master?

A. I prepared this table in an endeavor to clear up any misapprehension about this theory and I assumed that we have a plant commencing the first year with one machine valued at \$1,000. That each year thereafter on June 30th we would add another machine of \$1,000 value and that each machine would earn net ten per cent

or gross 20 per cent and expenses, 110 per cent leaving a net return of 10 per cent on the amount. I give ten per cent on the opening balance and ten per cent on the additions and work it out beginning with the first year with a machine valued at \$1,000.

Ten per cent would be one hundred. And another machine June 30th, another thousand dollars and interest and then depreciation five per cent per annum on that machine, \$75.00 operating expense \$150 paying ten per cent on the investment, we have \$2,275. Deduct gross earnings \$300 and it leaves cost the first year or gives \$2,075 investment in that plant. Carried forward each year I find at the end of 20 years we had an investment of \$43,933.12. The original outlay here we would assume to go a thousand dollars being the price of the first machine and as there is always your depreciation reserve %75.00 plus the amount required to get a new machine the final result would be that \$10,000 would be invested in that plant in capital at the end of that time having on hand 21 machines at \$21,000. Take the machines themselves and work the depreciation down on the basis at which you charged it at five per cent per annum you find the present value of those machines to be \$10,000 representing this investment value of \$43,000. There is a proportion of that depreciation in fact all the depreciation went back into the plant to get its ten per cent consequently that has got to be taken care of and the stockholder has got to get something coming yet under the Wisconsin theory and that amount will bring up the investment to \$21,000 the par value of the machines at the end of the time. He having pulled down net ten per cent of his investment throughout and five in some cases. He gets his five per cent throughout the depreciation earning ten per cent and his five per cent taken care of would bring up his investment to 21,000 the par of the machine, but not \$43,933.

Q. In other words, if I understand your statement and your analysis and criticism of Mr. Hagenah's statement under his theory if rates were based upon his method of ascertaining the method value the consumer would — paying a return upon practically double the investment.

A. In this case yes, but in other cases it might work very much the opposite way where the company would have no investment at all wipe it out entirely.

Q. In other words if it was operated long enough?

A. Carried long enough and a sufficient high rate you could wipe the investment right out even on this theory.

Mr. BYERS: We offer Exhibit No. 34.

COURT: Here is my idea of the Wisconsin theory, that it is simply a rate making table first and the design of it is to allow them to earn or recoup their earnings where they are not earning at least 8 per cent or ten per cent whatever it is. They are not affected by the excess, for instance if they were actually earning say only five per cent for rate making they are allowed to recoup that, but if it goes above that that they are not affected by it for rate making.

Of course if they are affected by high and low the greater their earnings the less value of the plant would be and the less earnings the greater the value of the plant would be.

A. It is not the idea I am quarreling with, it is the application of the theory.

Mr. GUERNSEY: I would like to defer our objections to this Exhibit 34 until we understand it a little better.

Q. To cover that question of depreciation a little just give us your explanation of that and then we will take up another matter?

— All I can say more about it is that the investment calculated on the depreciation values would give you \$10,000 and they still have \$11,000 in that imaginary plant which would leave your Wisconsin theory investment \$21,000.

3420 Q. For a little over \$11,000 investment?

A. For \$10,000. The other \$11,000 representing these profits which they have not taken out, capitalization of their profits. I might say further the difference between \$43,000 and \$21,000 represents the depreciation which has gone in out of interest. It is simply a question of reducing the statement by the amount of that depreciation plus interest account.

Court: Did you ever figure this from six per cent?

A. I have a six per cent table here.

Court: I understand that, but did you ever figure it eliminating the excess over six per cent in one year?

A. I have not, I will be glad to do it for you.

Q. This page 29 of your report, I wish you would just state briefly the basis of that table and that computation?

A. That table purports to show the added investment as per the books subject to the adjustment and qualifications made by Mr. Guernsey less depreciation as claimed.

Q. Worked out on six per cent?

A. No, worked out on the basis of their net earnings I stated and after applying six cents depreciation per thousand.

Court: In other words you took the net earnings for a particular year and divided that by six and got this result didn't you?

A. No, sir; divided it by the investment to get the return.

Court: In order to get this percentage?

A. Yes.

Q. Would this table if it were not for some adjustments you have made here show the cost of construction as it is shown by the books of the company?

A. It could be prepared that way.

Q. I wish you would prepare a table for us that will show what if anything must be added or subtracted from your statement
3421 on page 29 so that the result will show the cost of construction as it appears on the books of the company?

A. Yes, sir.

Q. Now you were questioned about one item of rate expense, I think it was fairly cleared up and at least your notion about what

ought to be done with it was fairly well cleared up, but I want to ask you if you can give any better reason now for excluding an item of that kind than you did on yesterday.

A. Well I might offer this suggestion and explanation if the company was about to sell and anyone about to buy this property both sides would be very anxious to consider this question of rate expense in order to determine what this property could do. In other words if the Des Moines Gas Company was going to sell this property on an earning basis I rather imagine they would want to exclude this as an expense, want to make large earnings and I think quite properly so.

Q. In other words I get this understanding from your testimony that an expense to be an operating expense in a manufacturing business must be an expense growing out of the operation of the business itself.

Objected to as leading, I think the witness ought to be permitted to do part of it.

A. That is my idea.

Q. Take this account or charge, in the end of course it all must be considered in making up a balance sheet to determine where you stand?

A. It has all got to be considered ultimately.

Q. Take a case like this for instance, see if it is a fair illustration of what you have been trying to get at. Suppose that some 3422 employe or officer of the company should be short or take out of the till a thousand dollars and carry it off, it is lost. There would be a thousand dollars of money taken out of the funds of the company, would that item be proper to go into operating expense?

A. No, I would feel quite justified to take that out in determining the sale or buying of that business.

Q. Why.

A. It should not be an ordinary recurring matter in that office.

Q. Is there any difference in principle between that item and an item like this of rate expense?

A. The principles are the same, yes.

Mr. GUERNSEY: Your idea both of them occur out of a steal?

A. No, I don't suggest that for a minute.

Q. I don't want of course to spend too much time on this salary proposition, but you were asked if there was anything wrong about this salary proposition, you don't mean to endorse that \$10,000 charged for salary in this case do you?

Objected to as leading and I submit if your honor please that we ought not to be required to make this objection so continuously especially where questions are of this kind.

A. I don't feel I am in a position to either endorse or negative.

Q. Now let me see if you can't negative it. You examined these books pretty carefully?

A. Yes, sir.

Q. You know what force is up there at that office?

A. Yes, sir.

Mr. GUERNSEY: We object to all of this as leading and as argumentative putting the argument into the mouth of the witness and getting the witness simply to say yes.

3423 Q. Did you find any indication up there at all about that office that these gentlemen were doing or performing any services for this company that justified any such charge?

A. One or two of the gentlemen do perform to my knowledge certain services, but whether those services or the value of them justify that charge I am hardly in a position to say.

Q. Did you find anything that the U. G. I. was doing that justified it in getting \$10,000 salary?

A. Well it might be justified in getting it under certain circumstances.

Q. Well did you find any?

A. I didn't observe it.

Q. Was there anything about the plant up there or its management that indicated to you the necessity of any help in the management of the business or in the performance of the necessary labor about the offices.

Q. In addition to the management that is local here?

Same objection.

A. I had the impression that the local management was very competent.

Q. Mr. Guernsey asked you if it was not entirely proper and common to have these expense extras charged up to the cost of operating the business. Is that usual and customary where companies are operating at a loss and not making money?

A. If we don't make any money there is no subscriptions I know that.

Complainant moves to strike the answer as not responsive.

Q. Well is it usual at all or common for public service corporations in states where the rate is a matter of adjustment by the authorities of the state to charge up as an operative expense such items as you find charged up here including dues and fees to local

3424 clubs and such things as that?

Same objection and as leading.

A. All companies charge up some charity expense to a greater or less extent, but I notice it is usually a lesser.

Q. Now just another thing about leakage here. Mr. Guernsey went over that and you say as I remember it in one of your tables here you used 1.35 per cent leakage.

A. If I said so I didn't intend to say that. 1.35 cents per thousand.

Q. What was the per cent leakage.

A. 4.31 per cent leakage.

Q. That is what you carried into that table?

A. Yes, sir.

Q. Mr. Guernsey had you verify the additions subtractions, multiplications and divisions if there were any in Exhibits 48, 49, 50, 51, 52, 53, 54 and 55. Now let's take Exhibit 48 a minute. Start with Exhibit 48 and work for the Master if you will a table using these figures so far as they go to show the average investment for five years and what the rate of return would be on the basis of this Exhibit 48.

A. Have you any objection to doing this tomorrow, it is quire a little work.

Q. No objection, if you will take Exhibit- 48, 49, 50, 51, 52, 53, 54, 55, and 57 and make them up showing the average investment for the same time and rate of return?

A. Yes, sir.

Q. Something was urged in Mr. Guernsey's questions at least against your taking the low manufacturing cost in 1910 in making up your tables. How do you justify that?

A. That is the actual. That is what the company has 3425 demonstrated it can do and is doing.

Q. The manufacturing cost for 1910 shows exactly what this company with its present facility and capacity can work out here in the ggas business.

Objected to as leading.

A. Yes.

Q. I wish you would tell us in your own way if you have anything further to say with respect to why you took the manufacturing cost of 1910?

A. I have nothing to say about it, but the company demonstraed it did business in 1910 on that basis.

Q. Was there anything to indicate that the company to do that were compelled to curtail in any respect expense where they ought to have been more liberal?

A. Seemed to me reasonable to assume they could continue to do so.

Q. That is the reason you took the item of 1910?

A. Yes.

Q. And not for the purpose as was intimated of being unfair in making up these tables?

A. Oh no I am not in the figure juggling business as Mr. Guernsey kindly suggested.

Q. You have a statement in the record this morning that I think perhaps won't read as well to you when you see it as it might have sounded to you and I want to call your attention to it so you may edplain it. I can't state it exactly to you, but that you did just what you were paid for. What did you mean by that statement?

A. That I complied with my instructions from the corporation counsel to provide his office with all the information available in regard to the operations of this company.

3426 Q. What did you do in the way of carrying out these instructions other than to make a good faith effort and a diligent effort to ascertain every fact that would either inform the Corporation Counsel as to exact investment in this case of this company or inform the Master or other counsel?

A. That was my *soul* endeavor in making this examination to get all and every fact available for the information of court and counsel.

Q. Finally now I want to ask you, as I remember it your figures show the value not the cost but the value of the investment of this company on December 31, 1910, to be in tround numbers \$1,550,-000.

A. As shown by the books with certain eliminations.

Q. Now what do you say as to whether from the examination you have made with your experience in these matters as to whether that sum represents substantially the investment value of this property.

A. I am afraid I can't very well answer that, I have not enough experience to say there is so much invested in that plant.

Q. I do not mean that, I mean the experience you have had as to the accuracy of the work. Leave ouf value and use investment in the plant?

A. As to the accuracy of its books in this regard do you mean?

Q. Would you be willing to rest your judgment upon that showing that amount as to the investment in this plant?

A. Yes, as shown by its books, yes.

Court: Assuming that that appraisement is correct.

A. A correct basis.

Q. This mornijg you spoke of *their* being *own* one dividend, was that exactly correct?

3427 A. One cash dividend.

A. Yes, one cash dividend. That is what you meant when you said one dividend?

A. I don't recall the question, but there was one cash dividend and two other dividends.

Q. What were the other dividends?

A. One \$300,000 in 1897 I think and the other one on the sale of the Capital City property to the Des Moines company.

Q. And what was that?

A. \$3,169,000 in securities.

Q. How much of that was interest bearing securities some of which have since been retired?

A. The interest bearing securities issued at that time amounted to \$800,000 of six per cent preferred stock contracts, and \$285,000 of first mortgage bonds.

Q. Both these items were dividends were they?

Objected to as leading?

A. Not exactly.

Q. What were they?

A. The \$800,000 preferred stock contract, \$120,000 of bonds and common stock \$2,249,000 were declared as dividends to the stock holders of the Capital City Company.

Q. And the balance of the \$285,000 five per cent gold bonds were absorbed in this Valley Junction business and in some other matter, the debt to the United Gas Improvement Co.?

A. Yes.

Q. \$105,000?

A. \$205,000 and a few hundreds.

Q. That was paid by the Des Moines Gas Co., turned over to the Capital City Gas Light Company for the U. G. I., \$120,000
3428 of these five per cent gold bonds?

A. Yes.

Q. Then what do you have to say as to whether or not that would make \$935,000 of interest bearing securities that were absorbed as dividends at that time?

A. I don't just reason that out.

Q. All the \$800,000 of the six per cent preferred stock contracts.

A. That went to the stockholders of the Capital City Company as dividend.

Q. Then the \$120,000 of five per cent gold bonds?

A. As part of the dividend, yes.

Q. That is \$920,000?

A. Yes.

Q. Then there was \$15,000 bonus or difference between the amount of the \$120,000 bonds and the debt wasn't there?

A. Yes.

Q. There was a discount on those bonds just about \$15,000.

Q. And it was all the U. G. I.?

A. As I understand it.

Q. On yesterday Mr. Guernsey had you admit, unless I am wrong that any new business commencing in new business you would have to borrow money to pay taxes. That is not true is it?

A. You might have to borrow money or issue stock to pay the taxes which taxes you would capitalize during construction. That is what I understand Mr. Guernsey wanted to know.

Q. Taxes are not payable at the first of the year are they?

A. They are not payable at the first of the year and I don't know how you charge taxes during construction here. Assuming there are any taxes during the period of construction you could reasonably capitalize it.

3429 Q. They would be charged to construction then?

A. Yes, sir.

Q. Did you refer to taxes on operations?

A. No I had in mind Mr. Guernsey asked me about taxes on construction.

Q. That would go into construction?

A. Oh yes, during the period of construction capitalized those.

Recross examination by N. T. GUERNSEY, Esq.

Q. Your taxes during construction would be treated as part of the cost of construction and capitalized on that basis?

A. Yes.

Q. The same way as interest during construction?

A. Until the plant is operating, yes.

Q. Until the plant is earning money?

A. Until it commences operating, yes.

Q. Do you mean to say that this distribution of the assets of the property of the Capital City Gas Light Company was what we ordinarily call a dividend?

A. That is a term you use in your own records.

Q. That don't answer my question.

A. Well I don't know what you mean. If you will explain it I will be very pleased to answer it.

Q. You don't understand my question?

A. I don't follow the meaning.

Q. You referred to the payment of some \$12,750 as dividend?

A. \$12,750, yes.

Q. Was this distribution of the assets of the Capital City Gas Light Company after they sold the property a dividend in the sense that the \$12,750 was a dividend?

3430 A. It was not, no. Of course I would not suggest it was at all.

Q. It was division of what this company had received for its entire assets?

A. Yes, including its profits on the transaction.

Q. It was not a dividend paid out of earnings?

A. No distribution of assets including profit made on the transaction.

Q. Whatever they made on the sale of their property?

A. Exactly.

Q. If they did make any profit on the transaction that profit you do not take it into account when you give the investment value of the plant in the hands of the next succeeding company do you?

A. No.

Q. You cut that out?

A. Yes.

Q. In other words you treated this in the hands of the Capital City Gas Light company as something that was paid for this property, but did not treat this in the hands of the Des Moines Gas company as something it had paid for the property. That is right, isn't it.

A. That is right.

Q. Now you said one reason why this rate expense should be excluded would be that if you thought or if the Des Moines company was endeavoring to sell this plant, and a purchaser was looking into the earnings and operating expenses, the company would like to exclude it?

A. As an expense, yes.

Q. Then how about the purchaser, do you think he would want to ignore it and then spread it over the next ten years?

3431 -- Yes, that should be ignored as regards the high cost which applied to the two years?

Q. The purchaser knowing it would be applied to future years would ignore it?

A. If he would have to pay the expense he would allow for it, but in determining the possibility of the business he would not take it into account?

Q. Unless he assumed in view of the outlay on the plant that might occur not every year, but periodically.

A. Every two or three years might be a more important factor.

Q. After mature deliberation that is the best reason you can give us for excluding this item?

A. I think it a very good one myself.

Q. Suggested to you by whom?

A. Not suggested.

Q. Haven't had any conference?

A. I don't require a conference in a matter of that kind.

Q. You have told us two or three times in answers to leading questions put to you by your counsel on redirect examination that the only thing you tried to do in this examination was to ascertain the cost of this property. That is an error isn't it?

A. That was one of the things I endeavored to ascertain, not the only thing.

Q. You have stated two or three times in answer to leading questions that was the only thing?

A. If I said so I didn't mean that.

Q. You put in a good deal more time getting operating?

A. Perhaps equally distributed.

Q. Checking that voucher by voucher, the last year, that was a big piece of work?

A. That was a good big piece of work.

3432 Q. The biggest single piece of work in the whole this?

A. Barring the preparation of the report itself, yes.

Q. Take this matter of salaries again I want to get what your position is squarely, if I can get it. You have testified about it three times now and I want to try again. Do you say that these salaries are items that ought to be excluded or not?

A. I have no particular view with regard to these salaries, whether they ought to be excluded or included, it is a matter for the court to decide.

Q. You have not intended to change your testimony on that subject?

A. Why no I don't think I did. I didn't intend to.

Q. Now let's look at this Exhibit 34 a minute, I don't understand it. You start out the first year with a thousand dollar investment in your machine?

A. Yes.

Q. And you charge a return of \$100?

A. Yes.

Q. Then you put in another machine in six months?

A. Yes.

Q. Figure the same kind of a return?

A. Yes.

Q. Then you figure your depreciation on the plant is \$75 on the two machines for that year?

A. Yes.

Q. So that to make that man whole at the end of the year he would have to have his machines and \$150 return and \$75 to make up depreciation on the machine.

A. No.

Q. Well haven't they depreciated?

3433 A. He is entitled to get his machines \$1925 plus \$75 plus his \$150.

Q. Let me ask my question please. You assume he is entitled to a return of \$150 don't you?

A. Yes.

Q. During that period you assume his machines have depreciated \$75 don't you?

A. Yes.

Q. So at the end of the year he has two depreciated machines?

A. Yes.

Q. To make up that depreciation would cost \$75 wouldn't it?

A. Yes.

Q. So if you give him the machines in their then condition plus \$75 he would have his machines as good as when they were put in?

A. Yes.

Q. He would have to have a return of \$150 in addition to that wouldn't he?

A. Yes.

Q. That is exactly what I asked you a few moments ago isn't it when you dissented?

A. No it is not.

Q. So he should have at the end of the year \$225 and the machines in their then condition, that would give him his return and enough to take care of the depreciation- that have occurred up to that time?

A. No.

Q. Now we will go over it again. I thought that was what you told me a moment ago.

A. I didn't intend to tell you that. He had the machines in the depreciated condition his reserve of \$75.00 and \$75.

Q. I am not asking what he did have but what he ought
3434 to have to make him whole on your theory?

A. That is what he ought to have.

Q. Now what he did get as a matter of fact he had gross earnings \$300 and operating expense \$150?

A. Your expense don't include depreciation.

Q. Of course I understand that. If they did include depreciation he would come out just even?

A. Come out \$75 net earnings.

Q. If that \$150 included depreciation he would come out just even at the end of the year, would not have been any \$75 shortage.

A. I don't follow that reasoning out.

Q. You would then not have to charge depreciation in column five?

A. If you eliminate depreciation in column five you would come out \$200 at the end of the year.

Q. But take it as you have it here at the end of the year he has \$150 out of which to reimburse himself for the depreciation and the earnings?

A. Yes.

Q. And that is \$75 short?

A. Yes.

Q. Now then in order to make that up to him you add that to his investment and pay interest on it?

A. The \$75 I stated before went into additions consequently was earning 10 per cent.

Q. What additions.

A. On the next business, that \$1000, when he bought the machine he put in \$925 new capital and \$75 depreciation.

Q. Oh no he didn't do that because he bought the machine in June and didn't get the depreciation until the end of the year.

A. Never mind when he got it, it went in there. He 3435 utilizes his depreciation as he goes along to buy new machines.

Q. But now then let's see, he is not entitled to that \$75 until the end of the year.

A. Be entitled to half of it as he goes along say \$37.50 in June.

Q. So he would not have it June 30th to put into the machine?

A. Might not have it all, go into the next machine.

Q. Does the correctness of this computation depend upon his putting that \$75 into the new machine every time?

A. It depends upon the depreciation going into the investment.

Q. If he put the \$75 into the new machine what did he put into the old one to keep it up?

A. That is part of his operating expense.

Q. So that you have allowed him here enough to keep up and maintain the old machines and help buy the new ones.

A. Yes.

Q. Which of course would be an unreasonable amount of depreciation?

A. I don't claim any reasonableness, simply an arbitrary thing to demonstrate the point. I don't say it is an actual occurrence.

Q. Suppose he had not had that depreciation, \$75 to help buy that new machine, before he got to depreciation and had paid that \$75 out of his own pocket and then when he received the depreciation had put that back into his pocket, would that make any difference in the calculation?

A. Bring the same results, the final result would be the same.

Q. So it makes no difference whether he uses this depreciation to buy a new machine or not?

A. If he puts the depreciation up in a reserve it has got to be earning on the same basis it goes in at.

Q. That don't answer my question.

A. That is as far as I can answer it.

3436 Q. All right I will try another. Now then if your depreciation here is charged up on a correct basis you have just enough to maintain your plant and keep it up to its original condition during this period haven't you?

A. Yes.

Q. You can't take that depreciation and put it off in a fund for twenty one years and let it pile up and keep running your plant can you?

A. It would not be good business.

Q. It would be worse than not good business?

A. You would have to go out and borrow it to finance your plant.

Q. You would have an additional expense in here you have not put in if you followed out this theory of yours and compounded that depreciation fund that way wouldn't you?

A. My point in that depreciation fund in the Hagenah table is to show—

Q. I didn't ask you what for, I just asked you for the fact.

A. If you put in into the plant as you put it in there you have got to get it out on the same basis, no other answer to it.

Q. I didn't ask you that. If you compounded this depreciation fund as you say you have to get these results the result would be that your plant would not run or else you would have to borrow some money or incur some expense to keep it going.

A. To put your fund outside?

Q. And if you did that you would have to pay for it?

A. Yes.

Q. And that same ten per cent?

A. That is reasoning away from the original proposition.

Q. Away from your theory but not from the facts?

A. Away from the facts too. The fact that this depreciation is added here and you are putting the plant in more than face
3437 value \$1000 and you have got to bring it down—

Q. You added that \$75 there for that depreciation?

A. Yes.

Q. Where did you get that to add?

A. The result of this computation.

Q. Oh no, this showed a deficit of \$75.

A. On ten per cent, yes.

Q. So this man did not add his return but was \$75 short. You add in your bookkeeping here \$75, but where did you get the money to put in there?

A. This outside column here and the outside column of the Wisconsin theory are not represented by money at all, that is the fallacy of it.

Q. To have that \$2,075 there that \$75 would represent something that the plant owes this man to make him square?

A. That would represent the deficit of his ten per cent income.

Q. That they owe him to make him square?

A. Yes.

Q. Now then at the end of your first year he would have in machines \$1925 wouldn't he? That is he would have his machines depreciated \$75?

A. At the end of the first year, yes.

Q. Then he would have \$75 to make up that depreciation?

A. Yes.

Q. Then he would have \$75 of his return?

A. Yes.

Q. He would be short the next \$75 of his return?

A. Yes.

Q. So you then owe the man the \$75 and add it to the value of your plant?

3438 A. Yes, sir.

Q. So the amount of his investment at the end of the year would be \$2075 instead of \$2000?

A. Take the depreciated value of the machines, the depreciation fund and what was coming to him.

Q. If you take that depreciation out of there he would be short \$75?

A. I am not taking it out of there, putting it back in the plant.

Q. But you do take it out when you get through with the criticism of the Hagenah computation?

A. Yes, because this depreciation goes into the plant and has got to earn on the same basis.

Q. Now let's go to another year, he started out at the end of this year the man had \$2075 invested, \$2000 being made up of the \$1925 plus the \$75 to make him his original investment and the \$75 being made up of the deficit that they owed him. Now at the end of the next year we find this change don't we that he has invested another \$1000.

A. No, not exactly. He invests the amount returned over and above his depreciation to buy his machine.

Q. Well if he takes the depreciation away from the \$1925 he has not got his original investment has he?

A. He takes that \$75 to bring his investment up, puts that *in* additional capital in to buy another machine.

Q. Let's see what is done on your theory. He had at the end of the first year in machines \$1925 didn't he?

A. Yes.

Q. Then he had in money to make up depreciation \$75?

A. Yes.

3439 Q. Now then you say he takes that \$75 and puts in \$925 more with it and buys another machine?

A. Yes.

Q. Then he will have at the time he makes that purchase in his machines \$925 plus \$1000 and he will be \$75 short of their original value.

A. Yes.

Q. And he has invested this depreciation fund so that his capital is depreciated then \$75?

A. Yes.

Q. That is right isn't it?

A. Yes, the \$75 is taken care of in additional machine, it goes back into the business.

Q. The investment there is not as you put it here, there is not a thousand dollars additions to plant, only \$925 additions to the plant and \$75 invested on account of depreciation?

A. Brings exactly the same results.

Q. I don't care for results.

A. These are the facts when you come right down to the same basis that is the fact.

- Q. So that at the end of that second year what is his deficit?
- A. He is \$207.50 short in his income.
- Q. So on your theory at the end of that year—
- A. Subject to a return of ten per cent on his investment and his depreciation fund gone back in the business.
- Q. So at the end of that second year he started out with \$2,075— or did he start out with \$2,075?
- A. He started out with two machines and his shortage in income.
- Q. During this next year he gets how much depreciation?
- A. \$125.
- 3440 Q. And each year he goes a little further in the hole then on your theory?
- A. Yes.
- Q. It don't make him whole?
- A. Does not make him whole.
- Q. And it never will?
- A. At the end of twenty one years he will be whole and have \$21,000 representing his \$10,000 of capital and his \$11,000 of earnings which he has not taken out?
- Q. There is how much capital?
- A. \$10,000 being the present value of his machines, he will have that and he should have \$11,000 to take care of his shortage in income.
- Q. How many machines did you have him buy?
- A. Twenty one.
- Q. What was his total investment?
- A. He spent for the machines \$21,000.
- Q. You give him back how much?
- A. All he receives from depreciation fund, \$11,000.
- Q. Nearly twelve?
- A. No, \$11,000 the exact figure.
- Q. He put in \$21,000.
- A. He paid \$21,000 for machines, put in new capital \$10,000 and his depreciation of \$11,000.
- Q. Now then how much did he get out of it?
- A. Got earnings, his ten per cent interest was \$22,000.
- Q. That is only on your original investment.
- A. Oh no.
- A. That is not on your \$10,000?
- A. Yes, on the \$10,000 he got his twenty two thousand.
- 3441 Q. What else did he get out of it?
- A. Got his operating expenses out of it.
- Q. What else did he get?
- A. That is all.
- Q. Your theory of this thing is this he has advanced out of his own pocket \$10,000.
- A. At varying intervals as required.
- Q. When did he put that up?
- A. Put a thousand up when he bought the first machine and additional money up as he bought additional machines utilizing his additional money as it goes along.

Q. I want to go back to that second year, you start out that year with \$2,075 that he is entitled to on account of deficit and a return on investment?

A. Yes, sir.

Q. Now at the end of that year instead of getting any of that back he has made a further deficit?

A. Yes.

Q. So that with his additional investment it brings him up to \$3,270.50

A. Yes. I may make the suggestion this table could be checked up by taking additions to the plant of a thousand dollars less depreciation.

Q. What is the addition to the plant the last year, \$1900?

A. The last year \$25,000.

Q. It is a negative figure.

A. Negative figure.

Q. You don't put anything in at all?

A. Not the last year, takes a little out.

Q. Gets back \$25.00, when he buys the machine he gets \$25 back

3442 A. It begins to get his capital then.

Q. Suppose this man stopped at the end of the second year how much would he have to get to get out whole plus the depreciation on his machines and allowing him this return of ten per cent.

A. He would have to get out the \$3,207.50.

Q. The end of the first year I said?

A. To get out whole, with his ten per cent he has got to get out \$2,075.

Q. Takes that to get him out whole?

A. Yes.

Q. Take \$3,270.50 to get out whole at the end of the next year?

A. Not quite.

Q. Not quite?

A. Less ten per cent on that fund that went into the depreciation account.

Q. He was entitled to earn that if he put it in?

A. He is earning it and not entitled to have it piling up. That is my objection to it.

Q. Let's follow him through that year and see whether that is right. It takes \$2,075 to make him whole at the end of the first year?

A. Yes.

Q. Instead of getting out of the business and taking the money he goes ahead for another year with a guarantee of ten per cent return, suppose I had made a contract with that man I would give him a ten per cent return and let him quit at the end of any year he wanted to. Now take this second year he starts in with \$2,075. Now he is entitled to a return on that of \$207.50 isn't he?

A. Yes.

Q. And then he is entitled to \$50 more in the way of deficit.

3443 A. That makes \$257.50.

Q. Now of course at the end of that year he has not received the return by how much?

A. \$3,200.

Q. Now he is not short on the return that much?

A. The return \$500.

Q. This second year \$2,075 is what he has got in?

A. Yes, sir.

Q. Then he puts in another \$1,000 and the return he would be entitled to would — \$257.50. Now he is short some of that, how much is he short? He is short isn't he \$152.50?

A. No, he is not short that; he short \$72.50.

Q. He is entitled to a return of \$257.50, that is right isn't it?

A. Yes, that is right.

Q. Now his gross earnings are \$500?

A. Yes.

Q. His operating are \$250?

A. Yes.

Q. His depreciation is \$125?

A. Yes.

Q. So if I subtract \$375 from \$500 I will get his shortage?

A. Yes.

Q. That is \$125?

A. Yes.

Q. That can apply on the \$257.50 can it not?

A. Yes.

Q. That is all you can apply on it?

A. Yes.

Q. That gives you how much left?

A. \$132.50.

3444 Q. Then if I settle up with him at the end of that year I would have to pay him what he had to begin with \$2,075 plus the \$132.50 wouldn't I, he would have to have that to come out even wouldn't he?

A. No. You lose sight of the seventy five which went back in the business.

Q. Well but I don't think I do.

A. You would have to stand sponsor for \$3,200 with his ten per cent on seventy five which went in because the depreciation goes into that business.

Q. I didn't care whether it goes into the business or where it goes.

Q. That is the whole thing as far as that is concerned. That is the whole point with me that goes back there.

Q. In other words what it would be worth depends on where he invests the depreciation fund, not what is the amount of the fund or the return on it but where he invests it.

A. Not altogether. He has got to invest that fund if he draws the fund out of this business got to invest the fund at the same rates.

Q. Go back to the \$2,075 and you show me where I am wrong. This man I made this contract with call him Mr. Brown had \$2,075 invested there at the beginning of the year.

A. Yes.

Q. And he has that much in there that he is entitled to part of it in the business and part of it in the shape of a credit there the amount of \$75 that we owe him?

A. The \$75 of the depreciated value of these machines is in the business.

Q. In there was \$2,000 representing value of the machines?

3445 A. Exactly.

Q. Then \$75 I owe him on account of earlier losses.

A. Yes, sir.

Q. When we get through that year he has put in another \$1,000?

A. Less \$75 paid on depreciation reserve. That \$75 has got to go back in the business.

Q. You spent that the 30th of June before?

A. I will concede to it in this year, don't make any difference.

Q. I can't follow you if you don't say harder than that.

A. I don't care what year you put in it.

Q. You have got to have some theory or other more permanent?

A. I think my theory is quite permanent.

Q. If I take that depreciation fund and put it into a new machine then what I invest is \$925?

A. Yes.

Q. And I have not anything to take care of the depreciation on my old machine if you use that to make investment, a new investment of a thousand dollars?

A. You are bringing your original investment back by putting in this new machine, putting depreciation in that machine.

Q. I know, but you can't call that investment of a thousand dollars where you have taken the depreciation set aside to take care of the old machine and put in a new one, haven't got the \$2,000?

A. You have your new machine and depreciation on the old machine.

Q. Is that right?

— That is quite right I think. What happens in practice every day.

Q. You haven't at that time taken care of the old machine when you put in a new machine if you adopt that theory?

A. Oh yes.

Q. —

3446 A. You will find that works out all right. I can't explain any more than I have explained, I have explained it as well as I can.

Q. There is one thing I want to ask, down below here you have got gross earnings \$44,000.

A. Yes.

Q. Then you have offset against that another \$44,000 making up the operating expense and interest?

A. Yes.

Q. So that your gross earnings are not sufficient during any period to take care of your operating expenses, interest and depreciation.

A. They fall \$11,000 short through the entire period consequently

but investment at the end has got to be \$21,000 instead of 43 thousand and odd.

P. What does this item mean excess of interest over that applicable to actual earnings?

A. That is the interest accumulated assuming your depreciation fund goes into the business the \$11,000 here would have earned on a ten per cent basis \$11,933.

Q. Does that mean that that is interest on the depreciation re-invested in the business?

A. Yes, in other words it is the interest on the proportion of these opening balances which leaves the accumulated losses or depreciation not taken care of.

Q. Do you make any distinction between depreciation and accumulated losses?

A. They are all in there on this theory.

Q. Then that is interest on depreciation and interest on that balance whatever it is?

A. Yes, might call it that.

Q. That is a more accurate way of putting it isn't it?

A. It may be, yes.

Here the further hearing was adjourned until 9:30 A. M. Tomorrow.

3447

Saturday Forenoon Session.

SEPTEMBER 16, 1911—at 9:30 A. M.

Counsel for the respective parties all present.

Testimony on part of defendants resumed as follows:

JAMES HALL, continuing his re-cross examination, examined by N. T. Guernsey, Esq., testified:

— Now referring to Complainant's Exhibit 59, and your Exhibit 34, you will notice that the first column in your Exhibit 34 which gives the opening balance has been divided here in Exhibit 59 into two amounts?

A. Yes.

Q. The second column showing the additions on account of the deficits at the various years?

A. Yes.

Q. Now your column number one is made up of these two factors shown here as "A" and "B," in Exhibit 59, are they not?

A. Yes.

Q. Now your column we have divided in this Exhibit 59, and I wish you would state whether that is a correct division; that is, we have separated into sub-column A the interest on the investment and into sub-column B the interest on the deficit?

A. Yes, that is correct.

Q. That is correct?

A. Yes.

Q. Now 3, 4, 5, 6, 7, 8 and 9 are, I believe, just as they are in your Exhibit 34?

A. Yes.

Q. So that this would agree with your Exhibit 34, except it is subdivided as to these two columns?

3448 A. Yes.

Q. Now, I wish you would refer to Complainant's Exhibit 60, which is headed, referring to your Exhibit 34. Now, the gross earnings for the period are correctly stated there as \$44,000, as taken from your Exhibit?

A. Yes.

Q. And the operating at \$22,000; that is correct?

A. Yes.

Q. And the depreciation \$11,000?

A. Yes.

Q. Now if a man wanted to go out of business at the end of this period he would have, if he had used his depreciation to maintain his machines, the difference between thirty-three and forty-four in cash—that is \$11,000?

A. Yes, that is depreciation he set aside.

Q. No, if he had maintained his machines——

A. Assuming he had maintained his machines he would have \$11,000, being the amount he used as depreciation, set aside for that.

Q. What he used for depreciation he would not have left, of course?

A. If he set aside this amount for depreciation each year——

Q. I am not assuming that he did not—he maintained his machines?

A. He couldn't maintain it at 100% value.

Q. Well, he could theoretically at least have the machines in that condition or something that represented whatever depreciation there was in them?

A. Yes, if he applied the depreciation fund, yes.

Q. So that he would have if he maintained his machines, he would have left \$11,000?

A. Yes.

Q. He would also have left his machines in 100% condition or something that represented that?

3449 A. The machines plus other machinery to make up 100%.

Q. So that we call that \$21,000?

A. Yes.

Q. So that he would have left \$32,000?

A. On that reasoning, yes.

Q. On your figures?

A. I do not agree with your reasoning—on your reasoning, yes.

Q. I am not asking you to agree with the reasoning. We will go back now and see where we disagree on our facts. During this whole period he would receive \$44,000?

A. Yes.

Q. He would have to pay operating expenses?

A. Yes.

Q. If he kept his machines up that would take \$11,000 more?

A. Yes.

Q. He would use up \$33,000?

A. Yes.

Q. That would leave him \$11,000 at the end of the period?

A. Yes.

Q. He would also have the machines?

A. Yes.

Q. So that he would have altogether \$32,000?

A. Yes.

Q. Now, then, on the other side of that, if he came to figure it up, against that \$32,000, he would put in the \$1,000?

A. Yes.

Q. Then he had additions \$20,000?

A. Yes.

Q. Then he would have been entitled to interest amount-
3450 ing to \$32,933.12 on his original investment?

A. Yes.

Q. And on his additions \$1,000?

A. Yes.

Q. So that he would have gotten in with his investment and his interest \$54,933.12?

A. Yes.

Q. He would have taken out \$32,000?

A. Yes.

Q. So that he would have been short \$22,933.12?

A. Yes.

Q. And that is just the amount of the depreciation and the interest on the depreciation?

A. Yes.

Q. That is what he would have been short on the transaction?

A. Yes. I would like to add, the fundamental mistake in this statement that the depreciation has got to come out with the interest—I can not see any other way; I have spent hours over it and can not make any other thing out of it.

The MASTER: To get the exact depreciation each year properly you simply keep the investment whole?

A. Before you are adding on your depreciation.

Q. You take the depreciation fund and put it back in the business?

A. It is added just the same as outside capital.

The MASTER: I am talking about true depreciation.

A. It keeps the original investment whole.

The Complainant offers in evidence Exhibit 59 and Complainant's Exhibit 60.

We ask the reporter to copy into the record the short exhibit, being Exhibit 60.

3451 Mr. BYERS: Exhibits 59 and 60 are objected to as being incompetent, immaterial and not proper cross examination.

Complainant's Exhibit 60 reads as follows:

3452

"COMPLAINANT'S EXHIBIT 60.

Referring to Defendant's Exhibit 34.

Gross Earnings		\$44,000.00
Operating Expenses	\$22,000.00	
Depreciation	11,000.00	
		<u>33,000.00</u>
Balance		11,000.00
Machines, 21—100 per cent Good.....		<u>21,000.00</u>
		<u>\$32,000.00</u>
Original Capital January 1, 1881.....	\$ 1,000.00	
Additions	20,000.00	
Interest	{ \$21,000.00	
	11,933.12	
		<u>32,933.12</u>
Interest on Additions.....	1,000.00	
		<u>54,933.12</u>
Deficit.....		<u>\$22,933.12</u>
Investment Value.....		\$43,933.12
Value of Machines as Above.....	21,000.00	
Deficit as Above.....	22,933.12	
		<u>\$43,933.12</u>

3453 The WITNESS: I have checked over Complainant's Exhibit 56 and there are one or two small clerical errors here which I have noted on the bottom, otherwise it is all right.

Q. Is there anything of any consequence to affect the actual conclusions?

A. It is immaterial; two or three hundred dollars. I figured out the adjustment of the gross income also as we show it. Here are six copies of it.

Q. Referring to Complainant's Exhibit 61, Mr. Hall, this memorandum which you have made up at our request reconciling your gross income for the five years ended December 31, 1910—your net income, I guess it is—with the same figures as they appear on the books of the Company?

A. Yes.

Q. And under the column headed Cr. you put in your additions?

A. Yes, under the column Cr. representing credit.

Q. You put in what you add to the operating expenses and deduct it from the net income and under the column Dr. you put in what you deducted from the operating expenses and add it to the net income?

A. Yes.

Q. Did you ascertain for me in what year this personal injury occurred?

A. Yes, sir; it was 1903; it was a mistake. It was thrown back to the prior period, prior to 1895.

Q. It was thrown back into 1895?

A. Prior to 1895; it should have gone into 1903, to be strictly correct; that is a mistake.

Q. So that we don't get credit for that anywhere?

A. You do not.

Complainant offers and reads in evidence Exhibit 61, as follows:

3454

"COMPLAINANT'S EXHIBIT 61.

Adjustment of Gross Corporate Income as Shown by Complainant and as Recorded in Defendant's Exhibit No. 30, Exhibit "A," for the five-year period to December 31, 1910.

Two Months to February 28, 1906.....	\$15,377.48
Year to February 28, 1907.....	135,038.09
" 29, 1908.....	163,739.26
" 28, 1909.....	194,185.54
Ten Months to December 31, 1909.....	156,497.18
Year to December 31, 1910.....	185,729.62

As per Complainant's Records.....	850,567.17
As per Exhibit No. 30, Exhibit "A".....	864,518.14

Difference.....	13,950.97
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Accounted for:

	Cr.	Dr.
Accidents & Damages—1906....		\$3,685.17
Federal Tax—1910.....	\$1,287.37	
Rate Regulation Expense.....		5,935.18
Interest on Floating Debt.....		7,126.53
Interest—Miscellaneous	1,508.54	
	\$2,795.91	16,746.88
		2,795.91
		13,950.97

3455 The MASTER: There is one question I want to ask. Did you take out anything and on account of replacement?

A. No, I did not. I allowed all the replacements as they had them, if any, in the operating account.

Mr. BYERS: In that table you made there for the Master you used the wrong sign up there in your depreciation; you got it 6% and it should be six cents?

A. That is so.

Q. What do you mean by replacements, in response to the question that the Master asked you?

A. Replacement would simply be the putting in of something to replace something which was taken out.

The MASTER: The reason I ask this question, in his report he states that he agrees with Mr. Hagenah there was certain items which should have been replacements instead of expenses, but he made the remark if they are considered as replacement, they should go into the value of the plant.

A. Yes, providing you have taken out his own depreciation to take care of it, but any deficiency I would take care of out of my operating.

The MASTER: I asked the question simply to know whether he had taken out anything for replacement.

A. I did not feel it would be exactly fair to take anything out for that.

Q. This real estate item I asked you about Mr. Hall. I think you told me personally this morning you would have it looked up later?

A. I will have it got out. If General Byers approves of it, I will have Mr. Sangston put it in.

Q. That will be furnished later then?

A. Oh, yes; certainly.

3456 Q. It will be an accommodation to you to have it deferred?

A. Yes, I would much prefer; I will have to go east.

Q. Now with reference to this matter we took up yesterday, I will call your attention to your testimony on page 3352 and 3353 of the transcript; we were talking about this Hagenah table, which I will read: "Q. I don't care where it went, this man had to have both the depreciation and if the payment was deferred he would have to have interest on that and his return to make him whole? A. Yes. Q. Mr. Hagenah gives him both depreciation and return? A. I think he gives him depreciation twice, that is all. Q. You took away from him his depreciation after giving it to him once? A. I took away one, Mr. Hagenah doubles up on that depreciation and I separate it and give him one. Q. Where does Mr. Hagenah give him twice? A. On one side income charge depreciation on investment and not use it for getting reserve, purely a matter of book keeping." Now referring to this you did say, didn't you, that this was Mr. Hagenah's error and gave this man depreciation twice?

A. That is the effect of the thing.

Q. Didn't you say just what I read there?

A. Was that late yesterday afternoon?

Q. No, that occurred late on the afternoon of Thursday, September 14th?

A. I must have said it if it is there.

Q. That was a mistake?

A. It is not just strictly speaking correct. The interest which goes into depreciation—

Q. Don't explain, please, or I will have to cross examine you some more.

A. All right.

3457 Redirect examination by General BYERS:

Q. You may examine what the reporter has marked Defendant's Exhibit 35 and state whether that is a tabulation made up in response to a question put to you yesterday afternoon?

A. It is.

Q. To furnish us with a statement showing the book entries and a summary of the plant investment as taken from the books without any subtractions or additions upon your part?

A. It is.

Q. Exhibit 35 is that showing?

A. It is.

Q. That shows the total investment as you figured it out \$1,730,-205.31?

A. Yes, sir.

Q. Without any depreciation, or subtraction of any kind on the books?

A. With the deduction of the sum of \$264,108.78 charged off on June 30.

Q. That is on the books?

A. Yes.

Q. This shows just what the books show with reference to the investment?

A. Yes.

The defendants offer and read in evidence as a part of this witness' testimony Exhibit 35, which is as follows:

3458 DEFENDANT'S EXHIBIT THIRTY-FIVE.

Summary of Plant Investment as per Books.

January 1, 1895, to December 31, 1910.

Cost of Plant as shown by books, January 1, 1895:

Tank No. 1.....	\$7,000.00
Holder No. 1.....	8,000.00
Tank No. 2.....	13,056.64
Holder No. 2.....	20,300.00
Old Gas Works.....	25,000.00
Real Estate.....	8,916.00
Office Furniture.....	358.07
Gas Building and Machinery.....	63,621.40
Improvement.....	27,097.47
Extension Works.....	153.03
New Coke Wagon.....	30.00
Tank and Holder No. 3.....	40,279.01
Meters.....	16,849.17
Street Main Extensions.....	40,256.37

Extension Fuel Gas.....	15,898.24
Street Mains, Old.....	64,357.68
Service Pipe	18,957.10
New Services	16,547.72
Street Lamp Extension.....	3,710.84
Street Lamp Improvement.....	11,135.03
Water Gas Plant and Patents.....	200,000.00
Construction Account representing stock issued without consideration	39,371.22

Total.....	640,894.99
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Additions—January 1, 1895, to February 28,
1906:

Amount as per report page 21....	\$648,760.90	
Amount debited to Construction Account May 1, 1897.....	131,744.44	
Capital City Electric Light Co. Stock	2,553.00	
		<u>783,058.34</u>

Total Book Cost at February 28, 1906.....	1,423,953.33
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Additions—March 1, 1906, to December 31,
1910:

Amount as per report page 21....	484,487.94	
Valley Junction Property at price paid for same.....	45,000.00	
Bond Discount	33,950.00	
Reorganization Expenses	6,922.82	
		<u>570,360.76</u>

Total Book Cost of Capital City Plant plus Des Moines Company Expenditure.....	1,994,314.09
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Deduct: Amount Transferred from Profit and Loss Account as at June 30, 1909.....	264,108.78
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Total Investment in Plant December 31, 1910, excluding increase on transfer to Des Moines Gas Company.....	<u>\$1,730,205.31</u>
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3459 *Summary of Plant Investment as per Books—Continued.*

Total Investment in Plant December 31, 1910, excluding increase on transfer to Des Moines Gas Company.....	\$1,730,205.31
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Add: Increase in Plant Account on Transfer
to Des Moines Gas Co. on February 28, 1906:

Plant Account Des Moines Gas Company's Ledger	\$3,592,723.24
Less: Valley Junction Property...	45,000.00
	<hr/> 3,547,723.24

Total book cost of Capital City Company Plant February 28, 1906, as on previous page.....	1,423,953.33	
	<hr/>	2,123,769.91

Total Cost of Plant as shown by Books De- cember 31, 1910	\$3,853,975.22
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3460 Q. You may examine what the reporter has marked De-
fendant's Exhibit 36, and you may state what that is?

A. Exhibit 36 shows, first, the average investment in the plant
for the four year period from 1906 to 1909; for the five year period
from 1906 to 1910 both with and without Valley Junction; that is,
as those investments as determined by Exhibit 30 show the return
and applying that investment upon the schedules submitted by com-
plainant as regards Des Moines and Valley Junction in Exhibits 48,
50, 52 and 54. It also shows the average investment in Des Moines
alone excluding \$45,000 as the Valley Junction property and gives a
return on the basis of Complainant's Exhibits 49, 51, 53 and 55.

Q. You took Complainant's Exhibits of yesterday, numbers 48,
49, 50, 51, 52 up to 55 and carried their computation on out to a
final result as to return by adding the average annual investment
and figuring out a return on the basis of their exhibits?

A. Yes.

Q. I suppose so far as Valley Junction is concerned, it may be
more or less than it was at that time?

A. It may be; I assumed \$45,000 in Valley Junction.

Q. I suppose naturally it had increased rather than diminished?

A. I would expect an increase.

Defendants offer and read in evidence Exhibit 36, as follows:

3461

DEFENDANT'S EXHIBIT 36.

Estimated Average Investment and Return from Estimated Revenues.

Investment.		1906-1909, four year period.		1906-1910, five year period.	
		Years.	Product.	Years.	Product.
Estimated Investment, January 1, 1906.....	1,008,972	4	4,035,888	5	5,044,860
Additions to:					
February 28, 1906.....	7,332	3 11/12	28,717	4 11/12	36,049
" 28, 1907.....	275,581	3 1/3	918,603	4 1/3	1,194,184
" 29, 1908.....	67,203	2 1/3	156,807	3 1/3	224,010
" 28, 1909.....	13,860	1 1/3	18,480	2 1/3	32,340
December 31, 1909.....	69,864	1 1/3	23,288	1 1/3	93,152
" 31, 1910.....	107,955	.....	.....	1 1/2	53,977
Totals including Valley Junction...	1,550,767		5,181,783		6,678,572
Deduct: Valley Junction Plant.....	45,000		180,000		225,000
Net Total.....	1,505,767		5,001,783		6,453,572
Average Investment—Des Moines.....			1,250,446		1,290,714
Add: Valley Junction Plant.....			45,000		45,000
Total Average Investment.....			\$1,295,446		1,335,714

Return on Investment in Des Moines and Valley Junction.

Period—Years.	4 1906-1909.	5 1906-1910.	Year 1910.
Average Investment.....	\$1,295,446.00	1,335,714.00	1,496,789.00
Net Return applicable to Interest and Profits as per Complainant's Exhibits.....	48 \$96,053.61	50 97,683.67	54 92,034.45
Percentage of Return.....	%7.41	7.31	6.15
Return on Investment in Des Moines*:			

Period—Years.	4 1906-1909.	5 1906-1910.	Year 1910.
Average Investment.....	\$1,250,446.00	1,290,714.00	1,449,789.00
Net Return applicable to Interest and Profits as per Complainant's Exhibits.....	49 \$92,385.80	51 93,659.35	55 87,166.92
Percentage of Return.....	%7.39	7.26	6.01

* Assuming no increase in Valley Junction Investment during above period.

3462 Q. Yesterday you were asked by Mr. Guernsey about the \$800,000 6% preferred stock contracts not being a dividend and you acceded to that; just what did you mean by that; were you simply dealing with the definition of the word dividend?

A. Very largely. The \$800,000 preferred stock contracts, plus the bonds, plus the common stock issue at the time of the organization of the Des Moines Company was to be paid to the stockholders of the Capital City Gas Light Company.

Q. In other words, it was all divided between the stockholders?

A. Yes, their return of capital or profit.

Q. It was not, however, an ordinary cash dividend?

A. Oh, no.

Q. But it was a division of the spoils at the end of the term—finis, I think they wrote at the bottom of that page?

A. I think they did. You can call it distribution of the stock realized on the sale of the property.

Q. There would be no difference between that and dividing up the money if they had the money instead of the bonds?

A. I don't know; I think I would rather have the par value of the money.

Q. But so far as a division is concerned?

A. So far as the division is concerned, that didn't make any difference.

Recross-examination by Mr. GUERNSEY:

Q. The only point that was involved, what you told me yesterday, this was not a dividend in the ordinary sense of the term?

A. It is a dividend in the sense, ordinary sense of the term; it was not included in the return of capital. Take the word dividend as you would mean it is a return on investment; this is a return
3463 of capital, plus return on investment.

Q. It was a liquidation?

A. Yes.

Q. Referring to your Exhibit 35, that shows a total investment of \$1,994,314.09?

A. Yes.

Q. And that includes this discount on securities and reorganization expenses.

A. Yes sir; everything added on.

Q. Just as so in as you make this charge against it, \$264,108.78 you get away from the investment?

A. You get away from the money you put in.

Q. You get away from the investment?

A. Unless you take into consideration the investment is declining in value.

Q. You are getting away from the investment as soon as you are getting into that question?

A. From the original investment.

Q. Just as soon as you get into that, you are bound to take up the question of appreciation as well?

A. It should be considered.

The MASTER: These figures do not include working capital?

A. No, that is the physical property.

Q. Now there is one other thing—this investment is subject to another limitation, isn't it. The Des Moines Gas Company can not measure its investment in the plant by what the Capital City Gas Light Company paid for it, can it?

A. No.

Q. If the Des Moines Gas Company paid \$800,000 in preferred stock contracts, and \$285,000 in bonds, and then assumed
3464 \$400,000 more of bonds, that is its investment in addition to the common stock, isn't it?

A. Yes.

Q. So that this don't represent the actual investment of the Des Moines Gas Company, does it?

A. In the second page, the total—

Q. I want this amount. This \$1,994,314.09 does not represent the actual investment of the Des Moines Gas Company in its property?

A. That figure does not; no.

Q. This amount \$1,994,314.09 is less than the actual investment of the Des Moines Gas Company in this property without any reference whatever to the common stock, is it?

A. I don't know that I follow you.

Q. The Des Moines Gas Company when it bought this property paid \$285,000 in bonds?

A. Yes.

Q. It then assumed \$400,000 more of bonds?

A. Yes.

Q. And then issued \$800,000 of preferred stock contracts which were interest bearing obligations?

A. Yes.

Q. It has since put in \$570,000 in cash, according to your figures?

A. Yes.

Q. Will you foot those?

A. \$2,055,360.

Q. Now that represents what the actual investment of the Des Moines Gas Company is in addition to the common stock that was issued, don't it?

A. Subject to the deduction of \$120,000 of bonds being paid for the United Gas Improvement Company debt.

3465 Q. Why do you deduct that; didn't they have to pay that as a part of the purchase price of this property?

A. Yes, that is right, yes.

Q. Now these items I gave you foot how much?

A. \$2,055,360.

Q. And the Des Moines Gas Company has actually invested that much in the property in addition to the common stock?

A. Yes, actual investment, measuring by its bonds and preferred stock contracts will not agree with this.

Q. But the bonds and preferred stock contracts and the cash are the actual investment of the Des Moines Company?

A. Yes.

Q. These other figures do not represent the investment of the present company?

A. They do not purport to show that, no.

Q. Now, turn to Exhibit 36; I do not understand the upper part of this. Now your investment here stated in the upper part of this sheet, is based upon the original figures shown in your Exhibit 30?

A. Yes.

Q. Not upon either actual investment of the Capital City Gas Light Company, or the actual investment of the Des Moines Gas Company?

A. No, they are based on Exhibit 30.

Q. And it is lower than either of the other amounts we stated?

A. It is.

Q. You took Valley Junction arbitrarily—\$45,000—without reference to the value of that plant?

A. I did.

Q. Then when you got your total you divided that by four to get the average investment?

3466 A. Yes.

Q. Now in the lower part of this you get as a return under Exhibit 48 7.41 per cent?

A. Yes.

Q. Now that is a return on what?

A. On the average investment in Des Moines and Valley Junction as shown by Defendants' Exhibit 30.

Q. So that means, if you took Exhibit 48 as complainant's computation of the average net return applicable to interest and profits for the four years ending December 31, 1909, including Valley Junction?

A. Yes.

Q. So that upon your figures, if Valley Junction were included and the investment were put down to less than thirteen hundred thousand dollars, the return would be 7.41 per cent?

A. Yes.

Q. And that after deducting the operating expenses that you have deducted?

A. Yes.

Q. And without making any provision for rate regulation, accident and damages and the continuance of the present rate of taxation or anything like that?

A. Yes.

Q. Now Exhibit 50 is on the same basis, but for the five year period?

A. Yes.

Q. And that gives a return a little smaller, 7.31 per cent?

A. Yes.

Q. And for the year 1910, based on Exhibit 52, your return includes Valley Junction?

A. Yes.

3467 Q. And is based on the operating situation we stated a moment ago?

A. Yes.

Q. And is 7.66 per cent?

A. Yes.

Q. Now, this column headed Year 1910 grows out of the business of 1910 alone? Do you apply that to an average investment?

A. The year 1910.

Q. You apply to an investment of \$1,496,789.

A. Yes.

Q. That is an average of what?

A. That is the year December 31, 1909, accepted as one year and the return additions for six months, on the assumption they earned from June 30 on.

Q. Now, then, you have got the year 1910 based on Exhibit 54 which is Des Moines, including Valley Junction, and making the additions that are shown on Complainant's Exhibit 54 on account of depreciation, accident, insurance, expenses of collection and rate regulation.

A. It was all your additions.

Q. And that including Valley Junction gives a net return of 6.15 per cent?

A. Yes.

Q. Did you carry that out and find out what that net return would be for the same year, upon the same basis, but excluding Valley Junction?

A. Yes.

Q. Is it here?

A. Underneath that table.

Q. It would be 6.01 per cent?

A. Yes, assuming Valley Junction is \$45,000 and that the 3468 expenses of manufacturing and distributing from Valley Junction would be the same as Des Moines.

Q. Then this second line of Exhibits 49, 51, 53 and 55 are upon the same basis as the line above, except Valley Junction is excluded.

A. Yes.

Redirect examination by General BYERS:

Q. And these computations in Exhibit 36 are based upon 90 cent gas?

A. Yes.

Q. And without any estimate or without reference to any possible increase of sales or anything of that kind?

A. Simply on what the Company did, accepting the costs for Valley Junction the same as Des Moines.

Q. I don't want to annoy you again about Exhibit 35, but the testimony as it stands now might be misleading, would be to me, before I had the benefit of this long experience, I want to see if I cannot clear it up a little. Exhibit 35 shows, as I understand you, exactly what you said yesterday; you started out to get for the city

the construction cost of the Des Moines Gas Company's plant as shown by the books?

A. Yes; the books of the Des Moines Gas Company and the books of the Valley Junction Company, but ignoring altogether the sale.

Q. I am not talking about the sale now; simply what I want to get into the record, clear and definite for once, if possible, is the fact that this figure \$1,994,314.09 shows the sum total of the investment in the construction of the property as shown by the books of the Company?

A. Yes, including in that item the construction as shown 3469 by the books of the Company, including in that an item called construction account and the item of appreciation referred to yesterday \$134,000 and the bond discounts.

Q. In other words, that figure shows, that \$1,994,314.19 shows every dollar of money that the Company's books indicate went into the plant in addition to the items you say was without consideration and without money?

A. Yes; I have got to add, to treat that clear, and ignoring the transfer of interest from the Capital City Gas Light Company to the Des Moines Company.

Q. What I am trying to get at now, to have it clear in the record, is the amount of the actual investment in the plant as shown by the Company's books without reference to this over-night transfer?

A. That is all right; that is it.

Q. That is the amount?

A. Yes.

Q. \$1,994,314.09?

A. Yes.

Q. Now, then, the \$264,108.78 the sum by which you reduce that total to \$1,730,205.31 represents that amount of the investment that was taken out?

A. Yes, or the reduction of the investment on the books.

Q. In other words, if this concern were just starting and had just opened its books and had credited up to capital in actual money that had just gone into the business, including into the physical property and into the till or treasury, the books show \$1,994,314.09 had gone in, and then they had taken out of that, all that amount out of the till, or profits, or rather out of the plant, the \$264,108.78, 3470 thereby reducing the amount of the investment that much, is that correct?

A. No, that is not just exactly right. You are taking into consideration the question of cash in the till. This is the amount of cash and the other items which went into the construction of the physical properties.

Q. This \$1,994,314.09?

A. Yes.

Q. What is the \$264,000?

A. Is the writing off of the value of that \$1,994,314.09 on the books of the company.

Q. What did it represent if anything according to the books?

A. It is not stated; the assumption is it's the depreciation of the properties.

Q. When you said it was not depreciation the other day, all you meant to say was, that wasn't what they called it?

The MASTER: That \$264,108.78 credited to profit and loss if it were distributed to dividends would have changed the physical investment of the property?

A. Had they distributed that in dividends and not placed it to the credit of the construction account, the investment would still remain \$1,994,314.09.

Q. In other words, they used that much of their profits in paying for the physical development of the property?

A. As a matter of fact that is where the profits went, but this sum \$264,000, I cannot interpret it as writing down of the book value of the assets.

Recross-examination by Mr. GUERNSEY:

Q. That book value begins—when this charge was made
3471 and written down was \$1,994,314.09?

A. Yes, sir.

Q. Aren't you mistaken about that?

A. That one item does not appear in any one set of books; this is a composite figure prepared from the two sets of books.

Q. You- book value begins when that \$264,000 was written off?

A. Four million, one hundred and something.

Q. So that the books don't show anything written down as that?

A. That figure is not on the books.

Q. To get at this actual investment again, the situation is a good deal like this, isn't it: Suppose a man bought a lot for five thousand dollars and built a house on it for ten thousand dollars and carried that forward twenty-five years, making additions, so that he had \$25,000 there; then I paid \$50,000 for that in notes and mortgage and so on, and then I added \$50,000 to the property; you on this basis would figure the cost of that property to me at \$75,000?

A. Oh, no; the cost of your house is \$100,000.

Q. If you adopted this basis here you would say my investment was \$75,000?

A. I would say the composite of \$75,000; the composite investment of both parties was \$75,000.

Q. All I wanted to illustrate was whether or not this \$1,194,314.09 represented what is equivalent to what I call my investment there; it does not, does it?

A. It does not.

Q. It does not represent the cost of this property to the Des Moines Gas Company?

A. No.

Q. Does that \$1,994,314.09 including that \$100,000 for a holder?

3472 A. It does not.

Q. Does it include the \$45,000 for Valley Junction?

A. Yes.

Q. Where is that in there?

A. In the last section of the table.

Q. Add that \$120,000 to it?

A. \$2,114,314.09.

Q. You would have to add that to be fair?

A. On the assumption the holder went in.

Q. There is no dispute about that, is there?

A. I haven't heard it.

Q. What? Any dispute at all?

A. This, however, is by the books, and the holder is not in the books.

Q. Where do you find Valley Junction on the books?

A. It is referred to in the agreement, or in some document; it is referred to somewhere.

Q. Do you think in view of all the circumstances that it is really a safe proposition to just blindly accept what you find on the books that way, if it doesn't pay any attention to a little item like \$120,000?

A. There seems to be something wrong with the books.

Redirect examination by General BYERS:

Q. What writing on the books there was aside from this \$240,000 in either up or down, were principally up, wasn't it?

A. What \$240,000?

Q. I mean \$264,000?

A. That is the only writing down I notice.

Q. But there was considerably writing up?

3473 A. There was some.

Recross-examination by Mr. GUERNSEY:

Q. Let me ask you another question. Counsel asked you a question something like this: he asked you whether this \$1,994,314.49 was not the amount that the Company would have put on the books if it was putting in their actual investment in the property. You remember a question something like that?

A. I remember it.

Q. You assented to it?

A. On the assumption that this is one plant, dealing with one thing.

Q. Let us not make any assumption; let us take the facts as they actually existed. Assume they were the facts, is that the amount you would put on the books?

A. Not of the Des Moines Gas Company.

Q. That is the Company we are talking about. You would put on the books just exactly what appears there?

A. Yes, what I intended counsel should understand was that this was one plant, one continuous operation from beginning to end and no sale, that would be the opening figure I would take.

Q. You would have to have a sale to get an opening figure?

A. Not when you are constructing your final figure and you are opening for operations.

Q. You referred to this over-night sale; what did you mean by that?

A. I didn't say anything about an over-night sale.

Q. Don't most sales occur some time and immediately before the sale — it has not taken place, and immediately after — it has?

A. As soon as you sign them in.

Q. Nothing abnormal or peculiar about that?

3474 A. I didn't remark there was.

Q. I wondered what the significance was, you seemed to assent to it?

A. I don't think the words were mine.

Q. But you assented to them. Now, then, this \$264,108.78 was written off of the book value?

A. Yes.

Q. Then that entry did not affect in any way the actual investment shown by the books, did it?

A. It was written off the book value and consequently reduced it.

Q. You distinguish between book value and actual investment?

A. Yes, there is a very considerable difference.

Q. It was not written off the actual investment?

A. No.

Q. It did not affect the actual investment shown by the books a dollar?

A. Not a dollar.

Excused.

3475 E. C. PEASE, being first duly sworn on behalf of Defendants, examined in chief by R. O. Brennan, Esq., testified:

Q. What is your name?

A. E. C. Pease.

Q. Where do you reside?

A. On the east side of the river.

Q. How long have you lived in Des Moines.

A. About forty-five years.

Q. During the forty-five years of your residence in the city of Des Moines, what has been your general business?

A. Real estate.

Q. How extensively have you dealt in real estate in the city of Des Moines during these forty-five years in a general way?

A. I have been continuously in the real estate business for a little over forty-one years.

Q. In which part of the city do you maintain your office?

A. East side.

Q. How long have you had your office in east Des Moines?

A. Practically all the time.

Q. And what is the character of the real estate in which you have dealt?

A. Mostly east Des Moines property.

Q. And does that include business properties as well as residence property?

A. Yes, sir.

Q. And have you bought and sold property for yourself and others during those years?

A. Yes, more particularly others than myself, especially 3476 in the last ten years.

Q. Have you acquainted yourself, Mr. Pease, with the reasonable market values of property in the city of Des Moines?

A. Yes, sir; more especially on the east side.

Q. And that acquaintance with values has extended over a series of years?

A. Yes, sir.

Q. You have endeavored to keep in touch with the value and the range of prices in real estate?

A. Yes, sir.

Q. In the market?

A. Yes.

Q. Are you acquainted with the property owned by the Des Moines Gas Company in east Des Moines?

A. I am.

Q. Are you acquainted and have you been with that property for a number of years?

A. Yes, sir; all the time I have been there.

Q. And with the property adjacent thereto?

A. Yes, sir.

Q. Have been familiar with the sales of properties in that vicinity?

A. Yes, sir; largely.

Q. What do you say to the Master whether or not you are familiar with the values of real estate in that portion of the city?

A. I think I am, sir.

Q. Did you at the request of counsel for the defendants in this case examine the properties of the Des Moines Gas Company with a view to placing a valuation thereon?

A. I did, sir.

Q. About when did you make that examination?

3477 A. Day before yesterday.

Q. And did you examine the properties as shown on the plat Complainant's Exhibit 5 to which your attention is now called, that is to say, the properties inclosed in the red borders?

A. Yes, sir.

Q. Are you prepared at this time to tell the Master what those valuations are?

A. I am, sir.

Q. Exclusive of the buildings or improvements?

A. Yes, sir.

Q. Now, then, Mr. Pease, referring to Complainant's Exhibit 5, I want to call your attention to Lots 3 and 4 in Block K of Scott & Dean's Addition to Fort Des Moines, and you will please state what in your opinion is the reasonable market value of the lots to which I have called your attention?

A. Lots 3 and 4 in Block K, 132 front feet, \$75 per front foot, \$9,900.

Q. Now going to Lots 9 and 10, Block M, as shown upon the plat, Exhibit 5, tell the Master what in your judgment is the reasonable market value of those lots?

A. 132 feet, \$30 a front foot, \$3,960 on the south side of Elm Street.

Q. The 132 feet on Elm Street, that is Lot 9, what is the frontage upon Second Street?

A. 132 feet.

Q. 132 feet square?

A. Yes.

Q. Going now to the lots shown upon Exhibit 5 in Block C, being Lots 1 to 10, both inclusive, please tell the Master what in your opinion is the reasonable market value of the lots 3478 to which your attention has been called, and described in Block C as shown on this plat?

A. Lots 4, 5, 6, 7, and 8 in Block C, 280 feet, \$90 a front foot \$25,200.

Q. Now the other lots?

A. Lots 1, 2, and 3 in Block C, 140 feet, \$75 a front foot, \$10,500; Lots 9 and 10, Block C, 140 feet, \$65 a front foot, \$9,100.

Q. Does that include all the lots in Block C from 1 to 10 both inclusive?

A. Yes, sir.

Q. Now, referring to Lots 3 to 10, both inclusive, in Block B of Scott & Dean's Addition, shown upon Complainant's Exhibit 5, tell the Master what in your judgment is the reasonable market value of those lots?

A. 9 and 10, 140 feet, \$60 per front foot, \$8,400; Lots 3, 4, 5 and 6 in Block B, 192 feet, \$70 a front foot, \$13,440.

Q. In Block B, have you given the valuations of Lots 3, 4, 5, 6, 7, 8, 9 and 10?

A. Lots 3, 4, 5, 6, 9 and 10.

Q. And Lots 7 and 8, have you those in Block B?

A. No, I haven't got 7 and 8.

Q. You haven't got 7 and 8?

A. No. (Refers to plat.)

Q. What in your judgment, Mr. Pease, is the reasonable market value of Lots 7 and 8 in Block B, Scott & Dean's Addition as shown upon the plat.

A. \$60 per front foot.

Q. How many feet?

A. 66 and 74 feet.

3479 Q. That would be 140 feet?

A. Yes.

Q. On East Second Street, and 140 feet on Market Street?

A. Yes.

Q. That would be \$8,400 in the aggregate?

A. Yes.

Q. Did I ask you about Lots 9 and 10 in Block M?

A. Yes.

Q. Now, referring to the lots shown on Exhibit 5, being located

in Block T, Scott & Dean's Addition, being Lots 3, 4, 5, 6 and 7, state to the Master what in your judgment is the reasonable market value of those lots?

A. \$20 per front foot.

Q. How much per front foot?

A. \$20—\$4,000.

Q. If I have carried your figures correctly the total aggregate value of the property to which I have called your attention is \$92,900.

A. Yes.

Q. You have been acquainted with the values of property in that part of the city for a number of years?

A. I think so.

Q. And have kept in touch with the sales in that part of the city?

A. I have.

Q. Covering forty-one years of experience which you have had?

A. Yes.

Q. You tell the Master now, do you, Mr. Pease, in your judgment \$92,900 period represents the reasonable market value of the real estate and property to which I have called your attention, exclusive of the buildings and improvements thereon?

3480 A. Yes.

Cross-examination by W. L. READ, Esq.:

Q. Did you consult or confer with any one over the matter of the valuation of these lots?

A. Some time ago I had a talk with Mr. Mathis.

Q. That is F. A. Mathis?

A. Yes.

Q. One of the witnesses in this case for the city?

A. Yes.

Q. Did he give you his views with respect to the value?

A. Well, yes, he talked with me about the values and estimates.

Q. Was your conference with Mr. Mathis after or before he testified in this case?

A. Before and after; I told him his prices were too high—

Q. Don't mind about that—you conferred with him both before and after?

A. Well, I was in the office and there was several real estate men there talking the matter over.

Q. Who was in the office and participated in the talk?

A. I don't remember now; there was several in there.

Q. Mathis was there?

A. Yes.

Q. Who else?

A. I couldn't say; there was several in there.

Q. Whose office was it?

A. I think Mathis' office.

Q. You had gone there for what purpose?

3481 A. I just happened in there; I wanted to see another party; there was several in there and I stopped in.

Q. You cannot recall now what other persons were there?

A. No, I couldn't say; I didn't pay much attention; I know there was several in the office.

Q. Do we understand you had been in the real estate business in Des Moines forty-one years?

A. Yes, sir.

Q. Living on the east side all the time?

A. Yes, I lived one year on this side of the river.

Q. What year was that?

A. I can't say now what year it was.

Q. How long ago was it?

A. Well, I think it was——

Q. It must have been about forty years ago?

A. I couldn't say; it was so long ago, I couldn't say.

Q. You have lived in East Des Moines how long, continuously?

A. Well, forty-two years, with the exception of one year; probably about forty-three years.

Q. In all that time have you engaged in any other business than the real estate business?

A. No, not to speak of.

Q. Didn't you have a millinery store for a while?

A. No, sir; never did.

Q. On East Sixth Street?

A. No, sir.

Q. There was a Pease store over there?

A. Yes, sir.

Q. That wasn't you?

A. No, sir.

Q. Wasn't you connected with it?

3482 A. Well, I happened in there; my wife run it, but I had no interest in it whatever.

Q. Your real estate activity has been on the east side?

A. Yes, sir.

Q. Exclusively?

A. Well, pretty near, yes; I have done a good deal of business on the west side, but I do not claim to be posted much in west side real estate.

Q. Where is your office now?

A. I have my office at my house now, 911 Des Moines Street.

Q. Your office has been in your house all these years?

A. Oh, no.

Q. You now have your office in your house?

A. Yes.

Q. Where is it?

A. 911 Des Moines Street.

Q. That is not within the business section at all?

A. Very close.

Q. Well, there are no business houses in that vicinity?

A. Not in that block.

Q. The business center is down on Fifth Street, isn't it, or Sixth Street?

A. Yes, Sixth Street.

Q. How long has your office been in your house?

A. Oh, about probably four or five years.

Q. Hasn't it been there longer?

A. I think not; I couldn't tell without looking.

Q. You have not maintained a down town office much of the time in the last forty years?

A. All the time, excepting this last time; I have been —
3483 Coberger Block over the Bank.

Q. Officing with some one?

A. I had an office, roomed part of the time with Stewart, and part of the time in partnership.

Q. You have not maintained much of an office?

A. I had a regular office.

Q. You had a desk and a chair, that is all?

A. I had my fixtures and everything.

Q. Your fixtures have been a desk and some chairs?

A. Yes.

Q. That is all?

A. How much would you want?

Q. That is all.

A. I have had all necessary to carry on a real estate business.

Q. That is all anyhow, whether enough or too much?

A. Yes.

Q. Has your dealing in real estate in East Des Moines been for yourself or others?

A. Mostly for others.

Q. Have you bought and sold anything in the last year for yourself?

A. No.

Q. What have you bought and sold on your own account in the last twenty years?

A. I couldn't tell you without looking at the books.

Q. In the last ten years?

A. I couldn't tell you.

Q. In the last five years?

A. I haven't bought anything, I don't think.

Q. What is the character of the property you bought on your own account?

3484 A. Oh, it has been residence property.

Q. Lying way out on Stewart's Addition, north?

A. Oh, no; not much of that.

Q. You have not dealt on your own account with any property lying west of east Fourth Street, have you?

A. No, I don't think I have.

Q. What property have you handled in East Des Moines during the past year, for others, bought or sold?

A. Mostly residence property.

Q. Where is it, what property?

A. I don't know that I could tell you.

Q. How many pieces?

A. I sold several pieces.

Q. How many pieces?

A. I made a sale a short time ago on Locust Street, 45 feet, only a short time ago.

Q. Residence property?

A. No, sir, business—well it is used now as a residence, but it is considered business district.

Q. Where on Locust Street?

A. Between Sixth and Seventh.

Q. What other property?

A. On Maple Street, I sold a place on Buchanan Street; I couldn't tell you without looking at my books. I am busy all the time; sometimes I hit it and sometimes I miss it.

Q. You are busy trying to sell?

A. Yes.

Q. You made no purchase for anyone?

A. No.

Q. All been sales?

3485 A. Yes.

Q. What has been the aggregate amount of sales effected by you during the last year?

A. I couldn't tell you.

Q. Approximately?

A. I couldn't tell you.

Q. \$5,000?

A. I presume so.

Q. More than that?

A. I would think so.

Q. How much more?

A. I couldn't tell you without looking at my books.

Q. Your dealings have not been extensive?

A. They have not been probably as much as some.

Q. They have been comparatively light?

A. No, they haven't been very light; sometimes up as high as \$22,000 or \$25,000.

Q. In a single deal?

A. Yes.

Q. When was that?

A. The Kenwood Block, for \$20,000 and once for \$25,000.

Q. Where is that?

A. On Locust Street, the south side of Locust.

Q. Between what streets?

A. Fifth and Sixth.

Q. You made two sales of that within the last year?

A. No.

Q. When?

A. Two years ago, probably.

Q. That is business property?

3486 A. Business property.

Q. Take it in the past ten years, what has been the aggregate amount of your sales?

A. I couldn't tell you without looking it up.

Q. Has your business been extensive or otherwise?

A. I have been quite busy all the time, yes sir.

Q. And principally in residence property?

A. Yes—well business and residence.

Q. But the bulk has been residence property lying on the east side?

A. Both.

Q. Has your principal business been one class of property or the other?

A. Both together; anything I could get a hold of.

Q. Your sales have been principally upon residence property?

A. No, not principally; I couldn't say that.

Q. Your principal sale has been the Kenwood Block?

A. That is, heavy sale.

Q. You never made a sale heavier than that?

A. No.

Q. That is the only one of that class you did make involving so large an amount?

A. Yes, I think that is.

Q. The sales usually involve how much, you have made?

A. About \$1,500 and up.

Q. To what; what is the highest price residence property you ever sold in East Des Moines?

A. I couldn't tell you that.

Q. Approximately?

A. I couldn't tell you.

Q. \$3,000?

3487 A. Certainly more than that; I couldn't tell you without looking over my list.

Q. What principal sales of residence property have you made in East Des Moines?

A. \$4,000 anyway.

Q. What property was that \$4,000.

A. I sold the Wilkins property of East Ninth Street for \$4,000.

Q. That was when?

A. I couldn't tell you.

Q. Do you recall any other sale involving so large an amount?

A. I might pick it out.

Q. Think just a minute.

A. Pretty hard to think—I have a list of sales on my books; yes, I believe I had one \$6,300; I could pick out a good many in the course of a day.

Q. The sales in East Des Moines have been chiefly of small properties?

A. Both, Mr. Read, both.

Q. Have most of your sales been high-priced property or most of the low-priced property?

A. Well they have been what I call *baragins*, all of them pretty near; that is what I work on, bargains.

Q. Your mind runs to the bargain counter proposition?

A. I would like to sell property a man wants to sell.

Q. And wants to sell real badly; that is naturally so?

A. Yes.

Q. And the price is unusually low?

A. Well I like to get it as low as I can, yes, sir, that helps me.

Q. You make an easy sale then?

A. Yes.

3488 Q. You have been dealing in low priced properties, relatively low bargain counter properties.

A. Well, that—

Q. You are naturally pretty conservative?

A. Well, I don't know.

Q. Your mind sort of runs naturally that way?

A. Some might think so.

Q. Isn't that your reputation?

A. Nobody ever told me that.

Q. You are conscious of your conservatism?

A. It is natural for an agent to work on something he thinks a pretty good bargain.

Q. When you find a man who wants to sell and he is conferring with you as to the value, you naturally want to persuade him to take a price that seems to you the one at which he should sell?

A. I have not followed that course. I first find out what a man wants to sell for and then I look up the customer, and if the customer says it's too high and makes a bid, I go back with the bid; if he says he cannot stand that, that ends it.

Q. Prospective buyers—buyers are usually conservative in their offers, are they not?

A. Oh, yes; somewhat.

Q. You never knew of any great liberality evinced by a buyer of residence property?

A. Nor business property either, Mr. Read. A buyer is generally looking for a bargain counter as well as the other fellow.

Q. I wish you would tell us, Mr. Pease, precisely by what means and upon what basis you have fixed the valuations you have placed upon the various properties of the Gas Company?

A. On property that has been sold.

3489 Q. Well, now, what property did you have in mind, what property has been sold which has furnished you with the basis for you-valuation?

A. Well, of course, I don't know that property has been sold lately, of course, I have been in touch with the property down there ever since I lived there. I know generally speaking up to the last few years, property down there has been a hard proposition; it has been on the bargain counter, as you speak of.

Q. It has been a drug on the market?

A. Yes.

Q. Always has, and was that when you first went to East Des Moines?

A. I should say so.

Q. You couldn't give it away hardly?

A. No, sir.

Q. A sort of a yellow dog proposition, so to speak?

A. Just suit yourself about that.

Q. Well, that has been the estimate, or the way in which property has been viewed by East Des Moines?

A. I don't think agents have spent very much time on that property down there.

Q. You say that has been true up until the last few years; since then there is a change?

A. Yes.

Q. Now, to go back to the other proposition; you said you used as a basis for your valuation of the gas property, sales?

A. Yes.

Q. Now, what sales?

A. A sale on Third Street this summer made a short time ago, of a quarter block for \$8,000.

Q. What quarter block was that?

3490 A. That is the—I guess it is not on that chart—on the south side of the Rock Island and on the east side of Third Street.

Q. Can you show it on the plat there?

A. It is not on the plat. I didn't make that sale myself; I had it and had an option on it for three weeks.

Mr. BRENNAN: Was that the Yaeger property?

A. Yes, sir.

Q. Please describe the property, please take Exhibit 6 and get it from there?

A. I can't see it on there; that is too fine for my eyes.

At this time an adjournment was taken until 9:30 A. M., Monday, September 18, 1911.

